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PRE-MODERN ENCYCLOPAEDIC TEXTS

*Proceedings of the Second COMERS Congress,
Groningen, 1-4 July 1996*

EDITED BY

PETER BINKLEY



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NOTES ON CONTRIBUTORS

Wout Jac. van Bakkum is Professor of Hebrew at the University of Groningen

Maike van Berkel is a student at the University of Amsterdam

Peter Binkley is a Post-Doctoral Fellow in Medieval Studies, University of Groningen

Robert Fowler is Henry Overton Wills Professor of Greek at the University of Bristol

John B. Friedman is Professor emeritus of English at the University of Illinois at Urbana

Geert Jan van Gelder is Lecturer in Arabic, University of Groningen

Guy Guldentops is a doctoral candidate in Philosophy at Leuven University

Margriet Hoogvliet is a doctoral candidate in COMERS, University of Groningen

Hilary Kilpatrick is an editor of the *Journal of Arabic Literature*

Juris Lidaka is Associate Professor of English at West Virginia State College

Ulrich Marzolph is a member of the Seminar für Arabistik at Universität Göttingen and an editor of the *Enzyklopädie des Märchens*

Christel Meier is Professor of Medieval Latin Philology, University of Münster

John North is Professor of Philosophy, University of Groningen

Gerrit Reinink is Senior Lecturer in Syriac, University of Groningen

Brian Ogilvie is Assistant Professor of History at the University of Massachusetts

Vincent C. Renstrom is Assistant Professor of Spanish at Bucknell University

Bernard Ribémont is a member of the Centre d'Études Médiévales d'Orléans

Kimberly Rivers is Assistant Professor of History at the University of Wisconsin at Oshkosh

Bert Roest has a doctorate in Medieval Studies, University of Groningen

E.C. Ronquist is Associate Professor of English, Concordia University, Montréal

Catherine Rubincam is Professor of Classics at Erindale College, University of Toronto

Eric Saak is a Post-Doctoral Fellow of the National Research School of Medieval Studies in the Netherlands, University of Groningen

William Schipper is Professor of English at Memorial University in Newfoundland

Frank Trombley is a member of the Department of Religious Studies and Theology at the University of Wales in Cardiff

Michael Twomey is Professor of English at Ithaca College

Jan Veenstra is a doctoral candidate in Philosophy at the University of Groningen

William West is Lecturer in Rhetoric at the University of California at Berkeley

ABBREVIATIONS

- AHDLMA*—*Archives d'histoire doctrinale et littéraire du moyen âge*
AJP—*American Journal of Philology*
CCSL—Corpus Christianorum Series Latina
CHM—*Cahiers d'histoire mondiale*
CSCO—Corpus Scriptorum Christianorum Orientalium
DThC—*Dictionnaire de théologie catholique*
EETS—Early English Text Society
EMC/CV—*Echos du monde classique/ Classical Views*
JMRS—*Journal of Medieval and Renaissance Studies*
MGH SS—*Monumenta Germaniae Historica, Scriptores*
MLN—*Modern Language Notes*
PBA—*Proceedings of the British Academy*
PL—*Patrologia Latina* (ed. J.P. Migne)
RE—*Realencyclopädie der classischen Altertumswissenschaft* (ed. A. Pauly, G. Wissowa et al.)
RLAC—*Reallexikon für Antike und Christentum*

PREFACE

The mantelpiece contained forty buckskin volumes comprising a *Conspectus* of the Arts and Natural Sciences. They were published in 1854 by a reputable Bath house for a guinea the volume. They bore their years bravely and retained in their interior the kindly seed of knowledge intact and without decay.

Flann O'Brien, *At Swim-Two-Birds* (1939)

The narrator of *At Swim-Two-Birds* is a student at University College, Dublin, and lives in a room in his uncle's house. The ancient *Conspectus* so ironically described is no doubt the uncle's contribution; the speaker's own books occupy a ledge on the washstand and comprise Joyce, Huxley and other works of contemporary literature. The brave appearance of the buckskin volumes is evidence that they have seldom been consulted in the household of the petit-bourgeois uncle, and the narrator's absurd quotations from the *Conspectus* indicate his scorn for his uncle's idea of intellectual achievement. His description of the *Conspectus* might express the pious hopes of any encyclopaedist, but the "kindly seed of knowledge" contained in those forty volumes is entirely sterile.

Questions of the value of stored information have probably never been more problematic than they are today. We are ever more conscious of the role of information and the processes by which we obtain and use it in shaping society. Consciousness of the historical roots of our "information age" is therefore increasingly important; as an emblem of this development, I propose the World Wide Web page containing the text of Diderot and d'Alembert's *Encyclopédie*.¹ Encyclopaedic texts distil the characteristics of the intellectual life of an age, as the *Conspectus of the Arts and Natural Sciences*—considered as a commercial product, a normative statement of cultural values, a compilation from a literary canon—did for the Victorian provincial culture which O'Brien's narrator rejected. The

¹ Robert Morrissey, ed., "*Encyclopédie*," Project for American and French Research on the Treasury of the French Language (ARTFL), University of Chicago, online: <http://tuna.uchicago.edu/homes/mark/ENC_DEMO/>. To date only the first volume has appeared.

historical study of encyclopaedias, of their form, content and reception, can teach us much about the intellectual life of a culture.

The Encyclopaedia Project of the Research Institute for Classical, Oriental, Medieval and Renaissance Studies (COMERS) arose from a suggestion of Dr. G.J. Reinink, in the wake of the successful interdisciplinary and interdepartmental co-operative research project into the literary tradition of histories of Alexander the Great in various cultures. It was supported by Dr. Edmé Smits, whose sudden death in 1992 deprived the Groningen academic community of a fine scholar and a friend. The Encyclopaedia Project was a part of COMERS' general research theme of "Knowledge and the transmission of knowledge, from ancient times through to the Renaissance, in both East and West." This theme is divided into six lines of research: (1) Genre and genre theory, (2) Church and society, (3) Systematisation of knowledge, (4) Reception and reception theory, (5) Fracture and transition (specifically the boundary of the Middle Ages and the Renaissance), and (6) Urbanisation. The Encyclopaedia Project connected the research lines to the central theme and to each other.

An attempt to study encyclopaedic texts within so broad a cultural context as COMERS represents requires a sufficiently broad definition of the topic to include works from the various areas, and some common themes to draw together comparable phenomena. With a view to establishing these themes, a two-day workshop was convened in Groningen in the summer of 1994. Representatives of the COMERS disciplines presented brief overviews of current research into encyclopaedic texts and promising themes for future research. From the workshop discussions emerged the five themes that provided the structure for the congress:

Encyclopaedia: Definitions and Theoretical Questions. The problem of defining the encyclopaedia as a genre, given the various uses for which encyclopaedic works were composed and to which they were put.

Cultural and Political Uses. The functions of encyclopaedic works in various cultures are more diverse than a narrow view based on modern encyclopaedias would encompass. This theme includes the role of encyclopaedic knowledge in the service of religion, for example, or the role of encyclopaedic activity in bolster-

ing cultural identity.

Reception and Transmission of Texts. Problems in the transmission of individual texts, and in the role of the encyclopaedia as transmitter of knowledge, within cultures and between cultures.

Epistemology of Encyclopaedic Knowledge. The question of the relation of encyclopaedic texts to ideas about the limits (or lack of limits) to human knowledge. Can we, like the Franciscan Gilbert of Tournai,² know *omne scibile*?

Organisation of Knowledge. The widely divergent ways in which encyclopaedic knowledge can be organised, and the intellectual and social factors that can affect the organisation of knowledge.

Each of the themes was the subject of a plenary lecture, which becomes the first paper in the corresponding section of these proceedings. The congress met during four warm days in July, 1996, including scholars from the COMERS disciplines and beyond.³ It was remarkably fertile in the discussion of ideas and sharing of information across disciplinary boundaries. This volume could have been much larger (and delayed much longer), for the well of encyclopaedic texts cannot be exhausted of its cultural meaning.

² According to his epitaph: *Christo servivit, qui totum scibile scivit*; quoted by Beryl Smalley, *English Friars and Antiquity in the Early Fourteenth Century* (Oxford 1960) 41.

³ For example, Dr. Hilde de Weerdt presented a paper on Chinese encyclopaedias, Prof. Aditya Behl spoke on texts from Mughal India, and Prof. Alan Swanson discussed an example from early modern Scandinavia. I regret that it has not been possible to include these papers here, due to length.

**ENCYCLOPAEDIA: DEFINITIONS AND THEORETICAL
QUESTIONS**

ENCYCLOPAEDIAS: DEFINITIONS AND THEORETICAL PROBLEMS¹

ROBERT L. FOWLER

Shortly before the Trojan War, king Nestor of Pylos, in the western Peloponnese, paid a visit to the court of Peleus in the land of Phthia, in north central Greece, with a view to recruiting Peleus' mighty son Achilles for the coming campaign. Two lines in the seventh book of the *Iliad* describe Peleus' eager inquiries about the "Argives," as the southern Greeks were called. He asked about their "ancestry and their descent," and heard the answers with much pleasure.² Archaeology, dialectology and legend all confirm a general split in the Bronze Age between southern and northern Greeks, though ultimately they were all sprung from the same stock. In this scene in the *Iliad* an embassy from the south has gone to make the acquaintance of their distant relatives in the north, seeking their aid in the great pan-Hellenic enterprise. Plainly this is a first, or at any rate a rare, contact. Two once separate worlds came into each other's purview; Peleus' problem was to find a way to relate the strange to the familiar. In his time and place, the appropriate method of orientation was the genealogy: ancestry and descent. The first thing to ask any stranger was who his parents were. Further inquiry, one hoped, would turn up a known name, a point of contact which would permit the placement of the new data in its true relation to the old.

As a creature of imaginative fiction, Peleus' practice is naturally a retrojection of the practice of the early Greeks who told these stories. In their society, as in other early societies, the family was an institution of overwhelming importance. The genealogies of the

¹ For general discussion see R.L. Collison, "Encyclopaedia," in: *Encyclopaedia Britannica*, 15th edn.; *id.*, *Encyclopaedias: Their History Throughout the Ages* (New York and London 1964) (still the best general discussion in spite of inevitable gaps in expertise); A. Becq (ed.), *L'Encyclopédisme. Actes du colloque de Caen 12-16 janvier 1987* (Paris 1991); M. de Gandillac (ed.), *La pensée encyclopédique au Moyen Age* (Paris and Neuchâtel 1966) (reprint of articles from *Cahiers d'histoire mondiale* 9 [1966]); M. Piccone (ed.), *L'enciclopedia medievale. Atti del convegno...* San Gimignano 8-10 ottobre 1992 (Ravenna 1994).

² *Il.* 7.127f. (cf. 11.769f.).

great heroes, from whom the leading families believed they were descended, provided a basic framework for an understanding of the past. To most of these names, a story was attached; together, these thousands of stories, especially as told by the great poets, gave the early Greeks not only their history (for such it was to them) but also their sense of place in the universe, their outlook on life, and their traditional wisdom. These stories together constituted what anthropologists have sometimes called the "tribal encyclopaedia." At their heart lay the genealogy, and when the Greeks began to leave the mythical world-view behind they did not abandon their genealogical ways of thinking. The habit was so deeply ingrained that it provided the first scientific historians with the starting-point for their investigations; it provided the early physicists with a metaphor for explaining the evolution of the world; and it is perhaps not too far-fetched to suggest that it lies very near the bottom of Aristotle's taxonomic analysis of the cosmos.

Some fifteen hundred years after Nestor, Eusebius of Caesarea sat down to compose his chronographical table of world history—one of antiquity's greatest scholarly accomplishments.³ His purpose was to synchronise the traditions of Hebrew, Persian, Greek, and Roman history. These hitherto self-contained worlds had been brought into contact by historical circumstances and had somehow to be combined into a new, single entity. Eusebius found his solution in the fourth chapter of Ezra, where the rebuilding of the temple of Jerusalem is dated to the second year of the reign of Darius I. Since Darius' date was also provided by Greek sources based on Herodotus, this was the point of contact Eusebius needed to construct his massive table of synchronisms, all written out in parallel columns with the dates of events expressed in the various systems—Olympiads, years since Abraham, since the founding of Rome. Eusebius' table is symptomatic of a new consciousness in the world, of a new mental framework into which not only past events are fitted, but according to which the events of present experience are interpreted. New conceptual filters took the place of old, and affected fundamentally the notion of what constitutes the sum of all knowledge. Universal chronicles and histories henceforth

³ A.A. Mosshammer, *The Chronicle of Eusebius and the Greek Chronographic Tradition* (Lewisburg 1979).

included all these traditions, though the Persian connection tended to drop out of sight because of its unimportance to the Bible. The broader perspective of historical and linguistic learning remained a fact for a very long time; not until the nineteenth century did Greek scholars cease to learn Hebrew.

Eight hundred years again after Eusebius the western world re-discovered Aristotle. In the early Middle Ages, the compilations of Martianus Capella,⁴ Cassiodorus,⁵ and Isidore of Seville,⁶ together with the works of Macrobius and a legion of grammatical treatises, were representative of the state of secular learning. These encyclopaedias are well enough in their way, but they are thin gruel compared to contemporary Arab encyclopaedias, which, in addition to many new discoveries, retained connections with ancient science and philosophy, particularly Aristotle. When the master and his Arab purveyors finally made their way to northern Europe, it was another case of worlds coming together and creating a shift in mentality, this time of really stupendous proportions. It is no accident that the following century witnessed not only the philosophical and theological achievements of medieval Europe's greatest thinkers, who responded to the challenge, but also the production of the great medieval encyclopaedias,⁷ particularly those of Bartholo-

⁴ W.H. Stahl, *Martianus Capella and the Seven Liberal Arts* (New York 1971-77); D. Shanzer, *A Philosophical and Literary Commentary on Martianus Capella's De Nuptiis Philologiae et Mercurii Book 1* (University of California Press 1986).

⁵ L.W. Jones, *An Introduction to Divine and Human Readings by Cassiodorus Senator* (Columbia University Press 1946, repr. New York 1966); A. Momigliano, "Cassiodorus and the Italian Culture of his Time," *PBA* 41 (1955) 207-245; J.J. O'Donnell, *Cassiodorus* (Berkeley 1979); S. Leanza (ed.), *Flavio Magno Aurelio Cassiodoro* (Soveria Mannelli 1986).

⁶ J. Fontaine, "Cassiodore et Isidore: l'évolution de l'encyclopédie latin du VI^e au VII^e siècle," in: S. Leanza (ed.), *Cassiodoro* (as in n.5) 72-91, with references to earlier work.

⁷ For a guide see M.W. Twomey, "Medieval Encyclopedias," in: R.E. Kaske, A. Groos, M.W. Twomey (eds.), *Medieval Christian Literary Imagery: A Guide to Interpretation* (University of Toronto Press 1988) 182-215. Of course, a general cultural change and shift of attitude was afoot; see J. le Goff, "Pourquoi le XIII^e siècle a-t-il été plus particulièrement un siècle d'encyclopédisme?," in: *L'enciclopedia medievale* (as in n.1) 23-40; C. Meier, "Vom 'homo caelestis' zum 'homo faber': die Reorganisation der mittelalterlichen Enzyklopädie für neue Gebrauchsfunktionen bei Vinzenz von Beauvais und Brunetto Latini," in: H. Keller, K.

maeus Anglicus⁸ and Vincent of Beauvais.⁹ The astounding size of the latter work must in itself have suggested to contemporary scholars that the *omne scibile* was greater, indeed much greater, than anyone had realised.

Two centuries of further discovery in the gathering Renaissance did not typically find expression in the form of major encyclopaedias, but scholars never lost sight of the old inventory of subjects, and the sixteenth century saw a vigorous revival of omnibus productions.¹⁰ The invention of printing made so much information available to so many more people that capturing all knowledge, far from seeming more difficult as one might have expected, seemed to some thinkers a tantalising possibility. Connections were there to be made as they had never been before. The very word "encyclopaedia" is an invention of this era.¹¹ It was etymologised by Erasmus,¹² Budé,¹³ and everyone else as "the circle of subjects." This, indeed, is the interpretation of *enkyklios paideia* already in Quintil-

Grubmüller, N. Staubach (eds.), *Pragmatische Schriftlichkeit im Mittelalter: Erscheinungsformen und Entwicklungsstufen* (Munich 1992) 157-175. After all, the universities were born in this time, appropriate harbingers of renewed and expanded encyclopaedism. But the obvious fact of Aristotelian influence should not be minimized (so le Goff).

⁸ *De proprietatibus rerum*, c.1245; Frankfurt 1601 (repr. Frankfurt 1964). See M.C. Seymour et al. (eds.), *Bartholomaeus Anglicus and his Encyclopaedia* (London 1992); J.G. Lidaka in this volume, 393-406.

⁹ Vincent of Beauvais, *Speculum quadruplex sive maius* (Graz 1624; repr. 1964-65). For an orientation see M. Paulmier-Foucart, S. Lusignan, "Vincent de Beauvais et l'histoire du *Speculum maius*," *Journal des savants* (1990) 97-124.

¹⁰ R. Shackleton, "The Encyclopaedic Spirit," in: P.J. Korshin, R.R. Allen (eds.), *Greene Centennial Studies* (Charlottesville 1984) 377-390, 378-381.

¹¹ See the Excursus.

¹² *Adagiorum chiliades quatuor* (Basel 1540) 2.6.86 p. 537, quoted by J.-F. Maillard, "Fortunes de l'encyclopédie à la fin de la Renaissance," in: *Actes* (as in n.1) 319-325, 319: *Circulum absolvere, est rem omnibus numeris omnibusque partibus perfectam reddere. Unde et cyclopaideia dicta, quae disciplinarum omnium velut orbem absolverit, et encyclopaideia.*

¹³ F. Simone, "La notion d'Encyclopédie: Élément caractéristique de la Renaissance française," in: P. Sharratt (ed.), *French Renaissance Studies 1540-1570. Humanism and the Encyclopaedia* (Edinburgh 1976) 234-262, 246ff., quoting various texts. Of M. Lebel, "Le concept de l'encyclopaedia dans l'œuvre de Guillaume Budé," in: *Acta conventus neo-Latini Torontonensis* (Binghamton 1991) 1-24, I read only so far as the point where he quoted the famous passage of Quintilian, false reading and all, as a fragment of Fabius Pictor.

ian (1.10.1), and in that respect, if not for the form of the word, the Renaissance had ancient warrant for its practice; but the difference was that Renaissance writers placed much more stress on the notion of the unity of all knowledge, as expressed in the metaphor of the circle, because they were beginning to devote serious thought to universal methodology. They were starting to look for the key to all knowledge—a desire that lives yet in the physicists' search, after Einstein, for the Theory of Everything. The various inchoate attempts of the Renaissance bore fruit in the seventeenth century with, on the one hand, the establishment of first principles in the philosophy of Descartes, and on the other, the more practical analysis of the structure of all knowledge by Francis Bacon in the *Novum Organon*, which he meant of course to replace the old *Organon* of Aristotle; the challenge had finally been met, and the modern scientific method was born.¹⁴ From here a direct line leads to the great *Encyclopédie* of D'Alembert and Diderot, the prototype of the modern encyclopaedia, which used Bacon's scheme to determine its lemmata.

The notion of the *omne scibile* is not static; nor are the ways adopted to capture it. Peleus used genealogy, Eusebius used chronography to reduce chaos to order. Human beings cannot do without such tools as they confront the confusion of experience. Even if the maps we create only make sense to us—even if our north is in absolute terms really south, or even if there are no absolute terms at all—we are compelled to orient ourselves somehow, or we simply cannot function. In different times and places we have created different tools. Sometimes our native ingenuity invents these spontaneously; sometimes the need is thrust upon us by events: the advent of a new religion, or the invention of a new technology. Every age has its peculiar encyclopaedia. The changing form of this encyclopaedia, the reasons for the change, the conditions under which encyclopaedias and encyclopaedic texts are produced, and the place of the encyclopaedia in society and history at large are the subjects of this conference. We are further invited to consider the specific nature of the pre-modern encyclopaedia. None of us would maintain that the pre-modern age is undifferentiated—

¹⁴ I am speaking here of theory only; in practice the names of Galileo and Newton naturally take first place.

medieval is different from ancient, Greco-Roman is different from Arabic, Egyptian and Chinese, Christian is different from pagan, and so on—but yet there are some characteristics that they all share as pre-modern societies. What these characteristics might be should also engage our attention, at least as they are manifested in encyclopaedias.

But what is an encyclopaedia? The question is not so simple. Compilations of vastly different kinds have claimed the title. What do they all have in common? Can any one provide a point of reference by which to judge all the others? Pliny¹⁵ might be thought a logical candidate, the one surviving work from Greco-Roman civilization commonly called an encyclopaedia, which exercised enormous influence over subsequent ages. Yet on closer examination he offers many unusual features: he confines himself to natural history, at least ostensibly, even if he brings in an overwhelming amount of other information by way of his frequent digressions; he aims to be as comprehensive as possible, whereas most other pre-modern encyclopaedias are selective and propaedeutic; his book was not produced by an educator for other educators and their charges, but by an upper-class gentleman for a general readership; and the organisation of his data is probably the sloppiest in the history of bookmaking—one can only hope he was more focused in the discharge of his administrative duties.¹⁶ The sprawling farrago of a man who had his slaves read source books to him in his bathtub is perhaps not the best place in which to find the Platonic idea of the encyclopaedia.

One may say that encyclopaedias since the Renaissance have been ever more concerned with the first part of the word than the second: more with the notion of comprehensiveness than with education. In general one may distinguish in all periods between encyclopaedic works that aim to be comprehensive and those that aim to be propaedeutic; and further between those aiming to be merely

¹⁵ G.B. Conte, "The Inventory of the World: Form of Nature and Encyclopedic Project in the Work of Pliny the Elder," in: G.B. Conte, *Genres and Readers*, tr. G.W. Most (Johns Hopkins University Press 1994) ch. 3.

¹⁶ A chance remark in the seventeenth book, as he embarks on yet another digression, tells all: "lest I knowingly leave out anything that I ever happened upon" (17.137: *ne quid sciens quidem praeteream, quod usquam invenerim*.)

descriptive, and others with an implicitly or explicitly normative programme.¹⁷ (These groups may be variously combined; exhaustive encyclopaedias, for instance, could be either descriptive or normative.) Modern ones are more comprehensive and detailed, as a rule, than ancient ones, and not just because technology makes their production easier; the major modern encyclopaedias all rest on a programme that was at least in origin normative, in the sense that it springs from an explicit philosophical theory about the structure of reality.

Comprehensiveness is probably the main criterion the proverbial man in the street would mention if asked to define an encyclopaedia. It is certainly by way of that quality that the term has been extended to a bewildering variety of contexts. One can have an encyclopaedia of individual subjects, in defiance of the etymology. A quick check through *Books in Print* turned up hundreds of such works: for instance, the *Encyclopaedia of Southern Baptists*; the *Encyclopaedia of Major League Baseball Team Histories*; the *Encyclopaedia of Sauces for your Pasta*; the *Encyclopaedia of Amazon Parrots*; and for bedtime reading, the *Encyclopaedia of Death*. To call a comprehensive treatment of one subject an "encyclopaedia" is a catachresis known already in medieval China, where the term *leishu*, properly a collection of classical texts on many fields, came to be applied to similar treatments of one subject only, for instance the use of jade.¹⁸ In such "encyclopaedias" the idea is that one's subject is a world unto itself; it is broken down into its various aspects, which are analogous to the separate subjects of the original, broader encyclopaedia and which go together to make an organically connected whole in the same way. This is cheating, really; several thousand years of human history have struggled to find the true organic connections between all branches of knowledge, and thus the true encyclopaedia, still without absolute success, whereas these works start out with the unity as a

¹⁷ C. Codoñer, "De l'Antiquité au Moyen Age: Isidore de Seville," in *Actes* (as in n.1) 19-35, 21.

¹⁸ J.-P. Diény, "Les encyclopédies chinoises," in: *Actes* (as in n.1) 195-200, 198. He quotes an estimate that an eighteenth-century Chinese encyclopaedia, *Gujin tushu jicheng* ("Complete collection of books and illustrations past and present"), contained 3 to 4 times the amount of material in the eleventh edition of the *Encyclopaedia Britannica*.

given because they are only discussing one subject.

Nonetheless, this is a long established usage of the term and can hardly be ignored. Perhaps the single-subject encyclopaedia shares some feature more accidental than mere comprehensiveness with its more widely ranging cousin. The shared properties will not be merely formal—for instance, analysis of the subject into constituent parts, and presentation of material under lemmata—for encyclopaedias vary considerably in that respect; conversely, comprehensive works displaying the properties mentioned are not always encyclopaedias: witness the 700-page manual for my word processor, a comprehensive work indeed, which has moreover analysed its subject into a great many constituent parts, and presented them under lemmata.

Why, indeed, can't the word-processing manual be called an encyclopaedia? The differences, I suggest, lie in the attitude to its subject matter. In an encyclopaedia, the subject is "out there" in some sense in the noumenal or phenomenal world, and the author is engaged either in presenting discoveries about it or (much more rarely) making discoveries. The subject resides in a pre-existing collection of facts waiting to be recorded.¹⁹ It is part of the structure of reality in a way the instructions of the word-processing manual are not. Even in those encyclopaedias that explicitly acknowledge that our sense of reality and consequently the world of knowledge is always changing—an acknowledgement that takes the concrete form of supplementary volumes and new editions—the pretence is that at the moment of issue the information is reliable and accurate, true as far as it can be, and that at some time in the distant future the need to issue supplements will cease because the whole truth will have been brought to light.

Closely allied to this belief in truth is a belief in progress. Encyclopaedias cannot very well do without either, for the encyclopaedia is a fundamentally moral project: it is a collection of *useful* knowledge, which will improve the world. The hopefulness of the encyclopaedist is visible in all ages. Leibniz' encyclopaedic project, he modestly hoped, would lead to "universal knowledge, human happiness, public good..., true knowledge of God, eternal peace, and

¹⁹ H.A. Clark, "Encyclopedic Discourse," *SubStance* 21 (1992) 95-110, 99.

the end of all useless philosophical dispute."²⁰

The encyclopaedia claims to be complete, but the nature of human knowledge belies the claim.²¹ Humans simply cannot know everything about the subjects of encyclopaedias; moreover, their compilers normally suppress much of what they do know. The reader gets a selection; "completeness" is contingent upon a pre-determined extent of coverage, a decision normally made without explanation. The word-processing manual comes much closer to saying everything that can possibly be said about its subject.

Finally, the implied readership is normally different. The word-processing manual attracts only dedicated word-processors and expects to instruct them in everything they need to know. Encyclopaedias of medicine are more often read by laymen than doctors. The section on land surveying in Vincent of Beauvais would leave many a boundary uncertain were it one's only guide to practice. One must leave the "normally" in, however; there are certainly encyclopaedias whose very advanced articles are consulted mostly by experts (e.g., the *Realenzyklopädie der klassischen Altertumswissenschaft*, which must number few non-classicists amongst its readers).

We can probably find a way, then, to admit encyclopaedias of particular subjects to the discussion, without making our definition so broad as to be vacuous. Other kinds of works too would be usefully included under the rubric "encyclopaedic": I mean works that do not necessarily bear the outward marks of the encyclopaedia, but which have some essential relation to the *omne scibile*. A universe can be mapped out in a work of fiction, and some literary critics have indeed used the word "encyclopaedia" in their discussion of works like Joyce's *Finnegan's Wake*.²² A collection of individual books or excerpts can be called encyclopaedic too; some modern publishing enterprises have taken this form, such as the University of Chicago's *International Encyclopaedia of Unified Science*, which published fifteen monographs between 1938 and 1955. This series had a philosophical foundation: it was to be the

²⁰ W. Tega, "Encyclopédie et unité de savoir de Bacon à Leibniz," in: *Actes* (as in n.1) 69-96, 91.

²¹ J. North made this point in his plenary lecture to the congress.

²² Clark, "Encyclopedic Discourse" (as in n.19) 95.

encyclopaedia of logical positivism.²³ Other collections have less exalted purposes and merely aim to provide a library of reference books in a broad range of disciplines. The ancestors are Byzantine: the emperor Constantine Porphyrogenitus in the tenth century set afoot an enterprise of collecting and excerpting books on many branches of useful knowledge, and before him the patriarch Photius made précis of all the books he had read and published them under the title "Library." Migne's two *Patrologiae* are encyclopaedic works of this kind.

At this end of the spectrum, where the term "encyclopaedia" is applied to a variety of works, things are rather open-ended; at the other end, where the encyclopaedia merges with the dictionary, there is less room for manoeuvre in respect of form. Books bearing the word "dictionary" in their title frequently look exactly like encyclopaedias. How can we tell them apart? It is sometimes said that dictionaries are about words, and encyclopaedias are about things. But inasmuch as the words in a dictionary, if they are to be usefully defined, must often involve a consideration of things, and, on the other hand, encyclopaedic discussion of things often involves problems of definition, this distinction does not really carry us very far. Moreover, a glance at any library catalogue will show that in ordinary usage there is very little difference between dictionaries and encyclopaedias. There are thousands of titles in existence for both, and many of the dictionaries are not about words at all. For instance, there is the *Dictionary of National Biography*; the *Dictionary of American Pop and Rock*; the *Dictionary of Chinese History*; the *Dictionary of Courtesans*; the *Dictionary of Common Fallacies*; and the intriguing *Dictionary of Cement*. No one would call a simple glossary an encyclopaedia, and, conversely, no one would call a huge multivolume work like the *Encyclopaedia Britannica* a dictionary; in general, larger works are more apt to be called encyclopaedias than dictionaries. But between the extremes there is a very large territory where the two terms roam freely.

At one time it was relatively easy to distinguish the two kinds of works. The mischief began with Diderot and D'Alembert, who entitled their work "Encyclopédie, ou dictionnaire raisonné des arts,

²³ V. Cappelletti, "Il problema dell' enciclopedia," *Veltrò* 27 (1983) 765-781.

des sciences et des métiers.”²⁴ They wanted to draw attention particularly to the alphabetical order of the entries,²⁵ as opposed to the schematic organisation by subject of most earlier encyclopaedias. The arrangement did not impress Coleridge, who argued for the systematic approach in his prospectus for the *Encyclopaedia Metropolitana*, and remarked elsewhere that “To call a huge unconnected miscellany of the *omne scibile*, in an arrangement determined by the accident of initial letters, an encyclopaedia, is the impudent ignorance of your Presbyterian bookmakers!”²⁶ He is referring to the three Scots who produced the first edition of the *Encyclopaedia Britannica*.²⁷

Even a purely theoretical distinction is hard to develop.²⁸ It might seem that the purpose of the work would offer a sure guide. The ideal dictionary should be concerned above all with linguistic usage. At its most basic level it enables the user to point to something and say “that is an X,” in such a way as to satisfy other users who possess linguistic competence in a Chomskian sense.²⁹ The trouble is that once a dictionary goes beyond the level of a glossary, even if it keeps talking about words and not things, it starts to become an encyclopaedia, because words too are part of the *omne scibile*. A good dictionary is an encyclopaedia of words. It will tell us not only how to use them and say “that is an X,” but it can tell us about the history of usage by means of quotations, and also about etymology. Where else would one find these things if not in a dictionary?

²⁴ First volume published 1751.

²⁵ See D’Alembert’s *Prospectus* in the first volume and Diderot’s article “Encyclopédie.”

²⁶ Quoted by Collison, “Encyclopaedia” (as in n.1), 258.

²⁷ Andrew Bell (1726-1809), Colin Macfarquhar (c.1745-93), and William Smellie (1740-95, the scholar of the three). See Collison, *Encyclopaedias* (as in n.1).

²⁸ For orientation see J. Haiman, “Dictionaries and Encyclopaedias,” *Lingua* 50 (1980) 329-357; W. Frawley, “In Defence of the Dictionary: A Response to Haiman,” *Lingua* 55 (1981) 53-61; J. Haiman, “Dictionaries and Encyclopedias Again,” *Lingua* 56 (1982) 353-355. For a semiotic perspective see U. Eco, *Semiotics and the Philosophy of Language* (Indiana University Press 1984) ch. 2.

²⁹ If one wishes to function in a language one will have need of many proper nouns; thus these can be included in a dictionary defined as a guide to usage. Haiman and Frawley make too heavy weather of this problem.

To avoid a wholly aporetic conclusion on this point, we may say that dictionaries are not germane to the subject of our inquiry if they are simple glossaries—that is a purely functional purpose, like my word-processing manual—but in their more advanced forms, they are of interest as efforts to capture part of the *omne scibile*. Moreover, the techniques of the lexicographer have much in common with those of the encyclopaedist; these are plainly pertinent.

To sum up progress thus far, we may say that the following works and topics are relevant to the theme of pre-modern encyclopaedic works: works commonly called encyclopaedias, such as those of Pliny or Vincent of Beauvais, which anticipate in form the modern encyclopaedia; comprehensive treatments of a single subject that imitate the broader encyclopaedia; more generally, works that bear some essential relation to the *omne scibile*; and the *omne scibile* itself, both its conception and the methods used to capture it. Let me now turn to say a few words about these topics as they relate to the Greco-Roman world.

Ancient books that anticipate the medieval encyclopaedias are in one way or another connected with the *enkyklios paideia*.³⁰ “*Enkyklios*” means “in the circle,” and “*paideia*” means “education.” By the Augustan period,³¹ and no doubt already in Hellenistic times, this was often (though not always) understood to mean a cycle of standard subjects which went together to make the basic curriculum. This can be shown to be a re-interpretation. In the fourth century Isocrates (3.22) and Aristotle (*Eth. Nic.* 1.5 1096a3, *De caelo* 1.9 279a30) used the adjective *enkyklios* to mean “usual,” “ordinary” (one arrives at this from “cyclical” by way of

³⁰ The best treatment is H. Fuchs, “*Enkyklios Paideia*,” *RLAC* 5 (1962) s.v. See also H. Koller, “*Ἐγκύκλιος Παιδεία*,” *Glotta* 34 (1955) 174-189 = H.-T. Johann (ed.), *Erziehung und Bildung in der heidnischen und christlichen Antike* (Darmstadt 1976) 3-21. L.M. de Rijk, “*Ἐγκύκλιος παιδεία*. A Study of its Original Meaning,” *Vivarium* 3 (1965) 24-93, is not helpful despite its length. For the liberal arts see Stahl, *Martianus Capella* (as in n.4); I. Hadot, *Arts libéraux et philosophie dans la pensée antique* (Paris 1984); B. Englisch, *Die Artes Liberales im frühen Mittelalter (5.-9. Jahrhundert). Das Quadrivium und der Computus als Indikatoren für Kontinuität und Erneuerung der exakten Wissenschaften zwischen Antike und Mittelalter* (Stuttgart 1994).

³¹ See Vitruv. 1.1.12, 6 praef. 4. The expression itself occurs in Greek writers of the first century B.C. (Diod. 33.7.7, Dion. Hal. *Demosth.* 15, *De comp. verb.* 206).

“recurring”). Some scholars have taken this to be the original meaning of the phrase. Koller, however, pointed out that *enkyklios* in even earlier Greek refers to the circular chorus, and that learning to sing the traditional hymns and perform the traditional dances was a vital part of every free child’s education. “Unchorused” meant “uneducated” or “boorish.” When we hear, then, that Plato the comic poet in the early fourth century used the word “uncircled” to mean “uneducated” (frag. 251 Kassel-Austin), we may infer that the expression *enkyklios paideia* was already common, meaning “the kind of education you ought to give a child, as exemplified by the chorus”; that is, the traditional education, comprising letters, arithmetic, music, and dance. But the other meaning, “ordinary education,” competed with this sense from an early date.

In all definitions there are several shared implications. First of all, *paideia* is something you do as a *pais*, a child. The contents of the encyclopaedia are elementary and propaedeutic, preparing you for something else. In antiquity this higher stage of education consisted in philosophy and rhetoric; in the Middle Ages, the encyclopaedia was propaedeutic to the study of Scripture and a true understanding of God;³² for Politian in the Renaissance, encyclopaedic knowledge was needed for the interpretation of literary texts.³³ Secondly, since slave children were not educated as a rule, one thinks here of the education appropriate for citizen children, equipping them with the knowledge they would need for their future role as informed members of the body politic. The contrast of slave and free was of course one of social status, but was transferred in our context to one’s state of mind: education sets you free, liberates you from enslavement to ignorance and circumstance, and in this sense even slaves can be free. The encyclopaedia is morally improving, and those who write it must carefully select the best material for their readers. Naturally only the best authors will be read; the notion of a canon of classic works thus sits very comfortably with the notion of an encyclopaedia.

These ideas about education were basic and widespread; it is

³² The commonplace stems from St. Augustine, *De christiana doctrina* 2.59.

³³ Simone, “La Notion de l’Encyclopédie” (as in n.13) 242-243, quoting the chapter *quam multa poetarum interpretibus legenda* in *Miscellanea prima* (*Opera* 1 [1539] 517).

therefore surprising that so few comprehensive works treating the liberal arts were written before late antiquity. We know of only three possible examples: Cato the Elder's *Precepts to his Son* (early second century B.C.); Varro's *Handbook of Nine Disciplines* (first century B.C.); and Celsus' *Handbook of Six Subjects*, written during the reign of Tiberius in the early first century A.D.³⁴ None of these survives, although we do at least possess Celsus' books on medicine. Moreover, the claim of Cato's *Precepts* to be an organised encyclopaedia is justifiably questioned by A.S. Gratwick³⁵ both on grounds of evidence and of general probability—we should hardly expect such a work in Rome of the time. He prefers to think instead of a series of pamphlets or open letters to his son on some standard subjects—we know of a book on agriculture, another on medicine, and one on rhetoric; another book on warfare was probably part of this series. These have little to do with basic education. The excerpts show these writings to have been a series of disjointed aphorisms, described by Gratwick as “unsystematic, eclectic and quirky”; moreover, there is no evidence to suggest that Cato himself arranged these letters and published them together as an encyclopaedia. On the other hand, Celsus' six books treated the same four subjects as Cato, plus philosophy and jurisprudence; the latter was perhaps in Cato as well. It looks as if Celsus was imitating Cato, not Varro; Varro wrote on the typical Greek school subjects, but Celsus returned to the old practical Roman ones. By Celsus' time, at any rate, Cato's pamphlets had been put together by someone and were regarded as an encyclopaedia.

The only surviving ancient encyclopaedia is Pliny's massive compilation (Pliny died in the eruption of Vesuvius, A.D. 79), but it confines itself to subjects within the realm of natural history. The first surviving encyclopaedias with the liberal arts at their core come very much later, with Martianus Capella, who was probably

³⁴ Speusippus of Athens, Plato's nephew and successor as head of the Academy in the mid-fourth century B.C., has sometimes been said to have written an encyclopaedia, but the evidence does not justify any such conclusion. See W.K.C. Guthrie, *History of Greek Philosophy* 5 (Cambridge 1978) 463ff.; L. Tarán, *Speusippus of Athens* (Leiden 1981) ch. 3.

³⁵ A.S. Gratwick in: E.J. Kenney (ed.), *Cambridge History of Latin Literature* (Cambridge 1982) 143, 827.

writing around 470,³⁶ then Cassiodorus in the sixth century, and Isidore of Seville in the seventh. We have now entered the Middle Ages.

The reasons for the lack of comprehensive encyclopaedias are difficult to discern. The idea appears to have been Roman: an invention of Marcus Terentius Varro.³⁷ Some scholars have argued that Varro was copying a Greek original, but though such books do seem to have existed at a later period—Sextus Empiricus may be quarreling with one in his *Adversus mathematicos* in the third century—there is no real evidence of one existing before Varro, and thus no reason to deprive him of credit for his achievement. It was a typical Roman product: re-packaging and re-writing Greek materials in a form suitable for Roman consumption, with an eye to practicality. Such compilations, for whatever reason, were sufficient for Roman requirements. The Greeks of all periods preferred to use separate handbooks of the individual subjects.³⁸ These could be pitched at various levels from elementary (for the schools) to professional. The techniques of the two genres (handbook and encyclopaedia) are very similar:³⁹ division of the subject into parts, definitions of concepts, catalogues of examples, identification of peculiarities and commonplaces, etc. Varro's encyclopaedia was, in fact, a compilation of handbooks, but it was aimed at a broader public than the handbooks of the Greeks. Pliny only half-jokingly says his work is written for "the humble masses, the crowd of farmers and artisans, and idle students." Serious students would turn to other works. We are dealing here with a basic cultural difference. In our discussion above of the difference between certain kinds of manu-

³⁶ Shanzer, *Martianus Capella* (as in n.4) ch. 1.

³⁷ H. Dahlmann, *RE* Suppb. VI (1935) s.v.; M. Simon, "Zur Abhängigkeit spätrömischer Enzyklopädien der *Artes Liberales* von Varros *Disciplinarum Libri*," *Philologus* 110 (1966) 88-101. Hadot's skepticism in *Arts libéraux* (as in n.30) seems to me unjustified.

³⁸ Cf. K. Alpers, "Griechische Lexikographie in Antike und Mittelalter," in: H.A. Koch, A. Krup-Ebert (eds.), *Welt der Information. Wissen und Wissensvermittlung in Geschichte und Gegenwart* (Stuttgart 1990) 14-38, 31-32. That the west was satisfied for above seven centuries with the pathetic sum of learning represented by Martianus and the rest is one of the more depressing facts of human history.

³⁹ M. Fuhrmann, *Das systematische Lehrbuch. Ein Beitrag zur Geschichte der Wissenschaften in der Antike* (Göttingen 1960) 122, 162f.

als and the encyclopaedia we posited a difference in readership whereby the encyclopaedia normally counted on non-expert readers; recalling that now, we may say that in the Greek world either general readers were a rarity, or that writers were too snobbish to write for them.

The extraordinary popularity of encyclopaedias in the Middle Ages is an observable fact; whether the notion of an "encyclopaedic culture" is a sensible one in any way can best be tested here. It is a subject the medievalists are far better qualified to explore than I, but perhaps I may make a couple of tentative suggestions (freely admitting my inspiration from Christel Meier's 1984 discussion of the medieval genre).⁴⁰ The notion of the encyclopaedia as a book of the world, in which the "inventory of the Lord's creation"⁴¹ is set down, was very congenial to the Middle Ages; the study of the natural world led directly to, and had no other purpose than, the contemplation of God's majesty. Visible things lead to invisible, as Augustine said,⁴² and indeed St. Paul in Rom. 1.20, a verse quoted in the preface of more than one medieval encyclopaedia.⁴³ Other causes of the popularity of encyclopaedias in the Middle Ages might have been the exigencies of monastic training, for which many encyclopaedias were intended; the tremendous respect for tradition and authority, which encyclopaedias embody in their assiduous collection of canonical texts; and a demand among the laity for the essentials of learning, contained in one book representing

⁴⁰ C. Meier, "Grundzüge der mittelalterlichen Enzyklopädik. Zu Inhalten, Formen und Funktionen einer problematischen Gattung," in: L. Grenzmann, K. Stackmann (eds.), *Literatur und Laienbildung im Spätmittelalter und in der Reformationszeit* (Stuttgart 1984) 467-500.

⁴¹ W. Cahn, "Medieval Landscape and the Encyclopedic Tradition," in: D. Poirion, N.F. Regalado (eds.), *Contexts: Style and Values in Medieval Art and Literature* (Yale French Studies Special Edition, Yale University Press 1991) 11-24, 14.

⁴² *Retr.* 1.5.6.: *per idem tempus quo Mediolani fui baptismum percepturus* (A.D. 386) *etiam disciplinarum libros conatus sum scribere... per corporalia cupiens ad incorporalia quibusdam quasi passibus certis vel pervenire vel ducere*. Cf. *De musica* 6.2 (PL 32.1163). This idea was in fact derived from Varro: see Fuchs, "Enkyklios Paideia" (as in n.30) 392.

⁴³ Bartholomaeus Anglicus and the anonymous *Compendium philosophiae* published by M. de Boüard, *Une nouvelle encyclopédie médiévale, le Compendium philosophiae* (Paris 1936).

the libraries they could not afford. This demand is attested by the great number of translations of encyclopaedias into the vernacular languages,⁴⁴ and the astounding numbers of copies made—the manuscripts are as yet much underinvestigated.

If the encyclopaedia as a single book was absent from the Greek world, the notion of the *omne scibile* certainly was not. In the archaic age large-scale works of genealogy preserved the sum of mythological knowledge. The increasing sophistication of Greek civilization in the fifth century B.C. produced a need for higher education, which the Sophists sprang up to meet; provocative as ever, some of them claimed the whole of human knowledge as their province. The first serious philosophical analysis of the *omne scibile*, however, may be ascribed to Aristotle, who died in 322 B.C.; the unity of all knowledge is stated by Plato too, but with nothing like the clarity, cogency, or thoroughness. In the course of his life Aristotle produced voluminous works on rhetoric, poetics, logic, physics (which included astronomy and meteorology), ethics, biology, politics, history, ethnology, psychology, and metaphysics. That is pretty comprehensive. Certainly there are some omissions: there is not much mathematics, perhaps because to do mathematical research would make him look like his rivals in Plato's Academy; there is not much medicine, even though his father had been a doctor, or perhaps precisely because his father had been a doctor. But an astonishing amount is included.

Moreover, this research programme was not simply the result of someone getting interested in everything more or less as it presented itself. It was not a random enterprise. All of the subjects can be seen as aspects of the three "sciences" into which the Academy divided knowledge, physics, ethics, and logic; and these in turn can be understood as springing from the original questions of pre-Socratic philosophy, whose opinions Aristotle carefully noted, setting his students to record the doxography for posterity. These questions were, what is the world made of, and why does it have the form it appears to have. Everything in Aristotle can be related to these questions; but the whole enterprise has become infinitely more ambitious and sophisticated than the crude all-encompassing theories of the first philosophers.

⁴⁴ On these see Twomey "Medieval Encyclopedias" (as in n.7).

The fate of Aristotle's encyclopaedic library after the death of his successor Theophrastus is the subject of some doubtful legends; at all events, the Peripatos languished, while across the sea in Egypt, the new library and museum of Alexandria flourished. This was the greatest research centre of antiquity, home of many great scholars, scientists, and poets. Here all knowledge could be found, organised on shelves with labels attached. The scholar-poet Callimachus,⁴⁵ one of the earliest denizens of the Mouseion, compiled a critical inventory of the library, a catalogue raisonné known as the *Pinakes*. This work of substantial industry is a landmark in the history of scholarship. It included information about the biographies of the authors, and also decisions about the authenticity and genre of works; these kinds of judgments called for a scholar, not a mere listmaker. The *Pinakes* ran to 120 books and had the full title "*Pinakes* (Tables) of those who have been eminent in every branch of learning (*en pasei paideiai*) and of the works they wrote." Note "in every branch of learning," and the word *paideia*: this is comprehensive, encyclopaedic.

The *Pinakes* mapped out the territory for two hundred years of scholarly work. Commentaries and other aids to understanding the classical texts were produced in great numbers. Inevitably, some texts received more attention than others; the notion of a canon of the best works, most suitable for educational purposes, was soon developed. One aid to learning that emerges from this milieu is the glossary of unusual or obsolete words found in canonical authors such as Homer. In their simplest form they merely give the Homeric word and its prosaic equivalent. These were in the first instance given in the same order as they occurred in the text of Homer, so that you could follow along. But already in the early third century the practice of putting all these words together into one big alphabetised list is attested.⁴⁶ A scholar's version of such a work would add interesting information about where and how the word was used. Here is the birth of the encyclopaedic dictionary. A

⁴⁵ R. Pfeiffer, *History of Classical Scholarship from the Beginnings to the End of the Hellenistic Age* (Oxford 1968) 123ff., remains the standard work. For the fragments of the *Pinakes* see Pfeiffer's edition of Callimachus vol. 1 (Oxford 1949) fr. 429-453.

⁴⁶ Alpers, "Griechische Lexikographie" (as in n.38) 17-18.

good surviving example is the *Vocabulary of the Ten Orators* (note the canon) of Harpocration, written under Marcus Aurelius in the second century A.D. It is more than a glossary; it is an alphabetical commentary, and many nuggets of old learning, and fragments of lost authors, are preserved in it. This lexicon and many others, most of them lost, are the sources of the great Byzantine lexica and encyclopaedias.⁴⁷ The difference between Alexandrian and Aristotelian scholarship is a matter of focus. The former revolved around a collection of books, the latter around one man's vision. In the Hellenistic period following the death of Aristotle the old encyclopaedia was fragmented and divided up among a score of scholars, each with a different set of interests. The scholar with the most catholic interests was Eratosthenes (third century B.C.).⁴⁸ He wrote works on chronology, geography, literature, antique customs, astronomy, and mathematics; he also wrote poetry himself. For his efforts he earned the derogatory nickname "Beta," meaning he was second-best at a lot of things, but best at none of them. The encyclopaedist is not a real expert.

The research of the third and second centuries was typically published in the form of commentaries on the works of classical authors, general treatises, and in-depth treatment of single subjects (including of course the liberal arts) in the form of handbooks. Much good work was done. In the scientific arena, advances were substantial in mathematics, mechanics, astronomy, and medicine. In philosophy pride of place goes to the learned Posidonius, whose multidisciplinary and all-embracing achievement rivalled Aristotle's and influenced Varro.⁴⁹ In the treatise, handbook or commentary, a great deal of learning could be assembled. As the number of such works grew, the making of a book came increasingly to be a matter of putting together other books. Here is the origin of the typical

⁴⁷ Collison's startling statement, *Encyclopaedias* (as in n.1) 46, occasionally repeated by others, that the *Suda's* "main importance is that its arrangement was alphabetical—few books had previously adopted this system even for inset glossaries," is grievously mistaken, not only on the point of alphabetisation but in respect of the *Suda's* general significance.

⁴⁸ See Pfeiffer (as in n.45) 152ff.

⁴⁹ For the fragments and commentary see the editions of W. Theiler, 1-2 (Berlin 1982), and I.G. Kidd, 1² (Cambridge 1989), 2 (1988).

method of compilation.⁵⁰ The library was ransacked to yield the sources needed for each new purpose. These were annotated, excerpted, and combined. In essence this is merely to rearrange the treasure in new ways. Sooner or later the novelty wears thin. New discoveries and insights will diminish unless new raw material is put into circulation. This point began to be reached by the first century B.C. when a scholar such as Didymus the Brazen-gutted—so named for his stupendous industry—could produce (if the figure be believed) 4,000 books and never have an original idea of his own.

The more original and creative works of the Hellenistic period are regrettably lost to us owing to the laborious and expensive conditions of ancient book-production. When an authoritative new treatment of a subject was published, people tended to stop copying the earlier ones. The works that do survive, as chance would have it, come from the early centuries of our era, when the Greek encyclopaedia was gradually ossifying. In the various fields, a limited number of masterworks dominated the rest of antiquity: Strabo and Ptolemy in geography, Galen in medicine, Herodian in grammar (not now surviving), pseudo-Apollodorus in mythography, etc. These summative works may be regarded, in fact, as encyclopaedias of their respective subjects. They vary in quality, but on the whole one would rather have their Hellenistic predecessors. After the second century A.D. the energies of the greatest writers turned in new directions as the drama of Christianity's advent began in earnest.

With this very quick survey behind us we may perhaps return to the general theme. I have been asked to define the genre of the encyclopaedia, in view of the many uses to which it has been put. It must be apparent by now that the true genre does not have a single physical form. One text overlaps another in a vast spectrum. They all participate in the Platonic form in different ways. Indeed, the humanists who invented the word used it as an abstract noun, and not to refer to any one book. Encyclopaedism is the genre, not the

⁵⁰ One must be careful of a false syllogism which I occasionally detected in the discussion of some works at the conference: all encyclopaedias are compilations; most pre-modern works are compilations; therefore most pre-modern works are encyclopaedias.

encyclopaedia. Is there a way to define that instead?

Perhaps no one definition, but an approach. The encyclopaedic method of a given age is often expressed as a metaphor. It would be a reductive, but not altogether fruitless question to ask what this metaphor might be in each age. The genealogy is the obvious candidate for archaic Greece. For the classical age of the fifth and fourth centuries a case may be made for the *kosmos*, the Greek word, of course, for "universe," but originally designating any orderly arrangement; Greek philosophy assumed from the start that the universe *was* an orderly place that worked along the same lines as human reason. The idea, early developed by the Greek philosophers, that the visible things of the world contain a guide to the invisible, immutable laws that govern the *kosmos*, became one of the most pervasive and fundamental ideas in the whole of the ancient world and thereafter in the Middle Ages, as we have already seen, although the Christian understanding of how God related to the visible world was radically different. But the *kosmos*, though surviving as a metaphor, did not remain dominant. In the Hellenistic period I would suggest that the metaphor for encyclopaedism was the library. Knowledge in this metaphor is compartmentalised and labelled, and ferreted out from its hiding places by busy scholars writing mountains of books. The sense of a hierarchical structure of knowledge is weakened, but the number of polymaths in the world—people who have read every book in the library—multiplies. "Library" can indeed be used as the designation of a comprehensive treatment of a single subject (for instance, Diodorus Siculus' *Library of History* and pseudo-Apollodorus' *Library of Mythology*), putting one in mind of the similar extension of the word "encyclopaedia" in modern times.

In the Middle Ages, the mirror is a very common metaphor, as found in the titles of many works. Perhaps it is not the metaphor that most truly captures the age's encyclopaedism—here the medievalists must assist me—but it does seem indicative of a certain habit of mind.⁵¹ God is manifest everywhere around us; where his

⁵¹ Sister Ritamary Bradley, "Backgrounds of the Title *Speculum* in Medieval Literature," *Speculum* 29 (1954) 100-115, shows that the original, or at least one very widespread, idea of the metaphor is that one looks *into* the book to see oneself as one is, and as one ought to be. So St. Augustine on Scripture, and further in the

meaning is mysterious, Scripture guides us. Methodological reflection as a preliminary to learning is out of place here; there is no question of competing paradigms of truth. The idea that humans should aggressively seek knowledge for its own sake, much less determine the basic conditions for acquiring that knowledge, is dangerous; “daimon” or “demon,” after all, was etymologised as “the knower,”⁵² and if one was unaware of the etymology there was always the story of Eden. Consequently one simply holds up the mirror and sees what is there. The unpredictable order of the parts of the various medieval encyclopaedias is a product of the same manner of thinking; one can hold up the mirror indifferently to one part of creation or another in any order.⁵³ God is behind them all.

Whether “development” is a metaphor may be doubted, but it is a dominant notion in many branches of nineteenth-century scholarship in the wake of the Romantic interest in origins; Darwinism then entrenched the pattern of thought for the next hundred years or more. Certainly when applied to historical studies the search for the beginnings, growth, and ultimate decay of societies becomes a metaphor, that of the living organism. On the one hand the process was often understood in vaguely Hegelian or at any rate metaphysical terms: mysterious higher powers (fate, God) somehow drove the wheels of the historical engine. Such beliefs found ready subscribers in an age of vociferous Christianity, which stung by

title of his anthology of Biblical passages, *Speculum de Scriptura Sacra* (cf. Casiod. *Inst.* 16). She excludes from her study, however, the mirror as a metaphor of the “literary-critical principle of ‘holding the mirror up to nature’” (113 n.65), a notion of course with roots in Plato and Aristotle and equally widespread.

⁵² Isid. *Etym.* 8.11.15, cf. 8.9.3 (magical arts come from devils); J. Céard, “Encyclopédie et encyclopédisme à la Renaissance,” in: *Actes* (as in n.1) 57-67, 62-63. J.R. Veenstra, in his presentation to the conference, cited Jerome’s translation of Romans 11.20 *μη ὑψηλὰ φρόνει, ἀλλὰ φοβοῦ* as *noli altum sapere sed time*, a verse then read as a warning against knowledge (see 171 below).

⁵³ The arrangement of any given encyclopaedia might be determined by external criteria rather than anything intrinsic to the data; for instance, the 19 books of the encyclopaedias of Bartholomaeus Anglicus and Thomas of Cantimpré come from the twelve signs of the zodiac plus the seven planets (so Seymour, *Bartholomaeus Anglicus* [as in n.8] 10), and the 22 books of Hrabanus Maurus from the books of the Old Testament (*De rerum naturis* PL 111.10bc). On the other hand, some basic principles of arrangement are discernible, which the medieval author would regard as intrinsic to the data (such as proceeding from God to man, or even the popular hexameral schemes).

mounting criticism produced its last great apologies. Reality, like society, was hierarchical; human life had "higher purposes," man was a "higher" animal than the ape, admirable characters in novels are always "pure" and "noble," a translation of Plato is a runaway bestseller. On the other hand, the metaphor of the organism provides a link to positivism, for which the immanence of non-metaphysical laws in the sum of facts knowable about such organisms is a tenet. How many people that term in its proper sense describes may be a great deal less than commonly believed,⁵⁴ but the nineteenth century certainly displays a naive belief in the existence of facts, finite in number and theoretically countable. Since not even a Mommsen or a Wilamowitz could count them all, the encyclopaedia stepped in to list them for us. I am thinking of the eighty-odd volume *Realenzyklopädie der klassischen Altertumswissenschaft*. Progress in this world consists in the discovery of more facts.

What is the metaphor in the late twentieth century? Obviously, the computer. Encyclopaedias now come on a compact disc. Though they preserve the traditional arrangement of lemmata, it hardly matters; associated tools allow you to whiz around the disc and instantly connect anything with anything. You can reorganise the encyclopaedia according to your personal whim. Untrammelled free association is the preferred method of learning. Authority counts for little. Then there is the Internet. Its very essence is chaos; this, indeed, is touted as its strength. It is an endless labyrinth, with no sense of direction and no boundaries. One can find out anything; but one cannot know if one's new titbit of knowledge constitutes the whole of a subject, the tiniest part, the best part or the worst part, because there is no way of determining what the whole is, much less its structure or hierarchy. Is progress even possible in such a world? Probably not, for progress presumes that knowledge is finite and can be added to. The Internet gives the impression that knowledge is infinite and thus uncontrollable. The very idea of the sum of all knowledge seems to be disappearing. The notions lying at the heart of the encyclopaedia are discredited; positivism is a dirty word. I was not too surprised recently to read about a book

⁵⁴ As J. North insisted in conversation; in classical studies my favourite example is Wilamowitz, who is called an arch-positivist by those who know neither positivism nor Wilamowitz.

entitled *Being Digital*, in which the author is quoted as saying: "Most American children do not know the difference between the Baltics and the Balkans, or who the Visigoths were, or when Louis XIV lived. So what? Why are those so important?"⁵⁵ According to this author, children need to be taught how to think; I have no quarrel with that notion (unless by "how to think" he means only "how to use computers"), but his idea that one can teach people how to think independently of subject matter is very alarming. The future of the encyclopaedia after two and a half millennia is uncertain. In *Pantagruel* (ch. 20), Rabelais makes Thaumaste thank Panurge for his instruction, saying that he has opened up for him "le vrays puy et abisme de encyclopédie." The bottomless pit of encyclopaedia: Rabelais could hardly know how prophetic those words would turn out to be.

⁵⁵ Robert Fulford, "Elite, the New Scare Word," *The Globe and Mail* (Toronto) 15 June. The author is Nicholas Negroponte; I have not seen the book itself.

EXCURSUS ON THE ORIGIN OF THE WORD "ENCYCLOPAEDIA"

Earlier studies succeeded in tracing the first use of the single word "encyclopaedia" to the late fifteenth century. Henningsen⁵⁶ in the standard work documented its appearance as a false reading in the printed texts of Quintilian from the year of the *editio princeps* on (1470), albeit at first mostly in a mangled form; in humanist writings the first occurrence was c.1490 in a letter of Franciscus Piccius to Politian. Two years later Politian's friend Hermolaus Barbarus defended the word as a reading in the preface to Pliny's *Natural History*. In an addendum written the following year⁵⁷ Henningsen reports C.J. Classen's information that Bartholomeo Sacchi (ob. 1481) ascribed the word to Vittorino da Feltre (ob. 1446) in this passage from his life of the latter:

Varia studia etiam eodem tempore adolescentibus proponebat, quod diceret, ut corpus diversitate ciborum, sic animos alternatis studiorum generibus refici. Laudabat illam, quam Graeci Ἐγκυκλοπαιδείαν vocant, quod ex multis, et variis disciplinis fieri doctrinam, et eruditionem dicebat; asserens, perfectum virum de natura, de moribus, de motu astrorum, de linearibus formis, de harmonia, et concentu, de numerandis, dimetiendisque rebus disserere pro tempore, et utilitate hominum oportere.

The few writings of Vittorino do not contain the word, and it is obviously possible that Sacchi commits an anachronism. On the other hand, Vittorino was known chiefly as a pedagogue, and might well have adapted the ancient terminology. According to Sandys (who in his turn quotes W.H. Woodward's 1897 life):

[In Mantua Vittorino] established 'the first great school of the Renaissance,' 'the great typical school of the Humanities.' The impetus given to the enthusiasm and to the educational method of the humanists by the production of Guarino's rendering of 'Plutarch's' treatise *On Education* in 1411, and by the discovery of the complete Quin-

⁵⁶ J. Henningsen, "Enzyklopädie. Zur Sprach- und Bedeutungsgeschichte eines pädagogischen Begriffs," *Archiv für Begriffsgeschichte* 10 (1966) 271-362; see also U. Dierse, *Enzyklopädie: zur Geschichte eines philosophischen und wissenschaftlichen Begriffs* (Bonn 1977).

⁵⁷ J. Henningsen, "Orbis doctrinae: Encyclopaedia," *Archiv für Begriffsgeschichte* 11 (1967) 241-245.

tilian in 1416, and the *De Oratore*, *Brutus* and *Orator* in 1422, was fully felt by Vittorino.⁵⁸

Quintilian needs no further comment. Cicero's *De oratore* (3.21) speaks of the unity of the disciplines, and has much else to say about liberal education; it was a work often cited. The *De liberis educandis*, also influential in the Renaissance, contains the phrase *enkyklia paideumata*, "encyclical subjects" (7c). The unity of knowledge is a Renaissance commonplace, found e.g. in an oration of Gregorius Tiphernius, undated, but written by an author who held a chair already in 1447 and died under Paul II (1464-71).⁵⁹ It would not be at all surprising if a humanist of the early fifteenth century used the word "encyclopaedia." Further research into the correspondence of the age is called for.

At all events the earliest attested use of the word must be put back, after Henningsen's researches, before 1481, the date of Sacchi's death. W. Scott Blanchard recalled at the conference a passage of Andreas Brentius written about 1480;⁶⁰ it turns out that Brentius used the two-word phrase *kyklos paideias* (the "circle of education"), but in the same volume I found on p. 213 *kyklo-paideia*, one word, in a letter of Domitius Calderinus written in 1475. Politian's personal encyclopaedia, never published, consisting of useful citations in every branch of learning beginning with the liberal arts (quite medieval in form, therefore, but with the crucial difference that the citations are taken directly from good ancient sources), and brilliantly reconstructed by L.C. Martinelli, was begun before 1480.⁶¹

The question may be raised whether the early printed editions of Quintilian were responsible for the coinage. This seems unlikely in view of the considerable variance among them in their reading at 1.10.1, especially given the usual parasitical dependence of early editions upon each other. In his 1966 article Henningsen lists the readings of all editions of Quintilian before 1514 (after which

⁵⁸ J.E. Sandys, *A History of Classical Scholarship* 2 (Cambridge 1908) 53.

⁵⁹ K. Müllner, *Reden und Briefe italienischer Humanisten* (Munich 1970) 174ff.

⁶⁰ Müllner, *Reden und Briefe* (as in n.59) 77.

⁶¹ L.C. Martinelli, "Una dispersa enciclopedia di Poliziano," *Rinascimento* 2.20 (1980) 327-358. Reference from W. Scott Blanchard.

enkyklopaideian became vulgate for a couple of centuries); of these, 2 leave a blank, 6 print a two-word expression, and the remaining 23 print one word, of various forms (with or without the preposition *en-*, and other variations including outright gibberish).⁶² It seems unlikely that the first editors of Quintilian played a leading role in giving currency to the word; they either tried to reproduce what they found in their manuscripts or put in the word as they knew it from contemporary discussions.⁶³

Finally, Du Cange in his *Glossarium* cites an example in a life of St. Ildephonsus in the "Concilia Hispanorum" 2.569. I have not been able to verify this reference, not having the necessary expertise in church history nor access before the deadline to an appropriately endowed library. But it would be most surprising if this turned out to be earlier than the fifteenth century if it exists at all. All the evidence points to the invention of the word in humanistic circles in the wake of the discovery of the ancient treatises mentioned above.

⁶² Vittorino's pupil Giovanni Andrea de' Bussi in 1470 printed *enkyklopaideian*.

⁶³ The point may be made that "enkykl(i)opaideia" might well have appeared from the start as a single word to Renaissance readers if, as was normal, it was written in the manuscripts with compendia for the endings and with little or no space between the two words.—Simone, "La notion d'Encyclopédie" (as in n.13) 244, refers to the notion of an encyclopaedia in the works of Bruni and Giorgio Valla, but his references to the former do not bear him out. Bruni's "De studiis et litteris" (between 1422 and 1429: H. Baron, *Leonardo Bruni Aretino. Humanistisch-philosophische Schriften* [Wiesbaden 1928, repr. 1969] 5ff.) was written to a woman and recommends various restrictions and omissions; it is a special curriculum telling us little about his general educational philosophy, and does not speak of the unity of the disciplines. Valla, a friend of Hermolaus Barbarus, is more promising, but a little late for the present purpose. In 1498 he completed his encyclopaedia (published posthumously in 1501) *De expetendis rebus et fugiendis* which had a humanistic philosophical programme; a predecessor existed as early as 1481. Further investigation would be worthwhile. See P.L. Rose, "Bartolomeo Zamberti's Funeral Oration for the Humanist Encyclopaedist Giorgio Valla," in: C.H. Clough (ed.), *Cultural Aspects of the Italian Renaissance. Essays in Honour of Paul Oskar Kristeller* (Manchester University Press 1976) 299-310.

PATIENT AND IMPATIENT ENCYCLOPAEDISM

E. C. RONQUIST

These are notes toward the historical sociology of texts. For the brief discussion here I am concentrating on a distinction of patient and impatient working and reading practices. While trying to keep things balanced in a pluralism, I will display some sympathy with the new category of impatient encyclopaedias. I am limiting myself to data mostly from the European Middle Ages, and to the conflicting demands of universality.¹

What I would like to discuss are two kinds of encyclopaedic work, one of which aims to accumulate a complete array of data as determined by previous tradition, the other a deployment of data for practical experience. We may call the results patient and impatient encyclopaedism. From a literary point of view this will be a problem in the exercise of a genre, but pragmatically it has to do with the economy of knowledge, and the responsibilities and purposes, individual and collective, of those who guard, share, spend, or increase it. The proposed contrast replaces formal analysis with an intuition into styles of work that are also styles of reading. Patience as a manner of textual production would involve receptivity and endurance in research—a modern mode is textual editing—whereas impatience would lead to foreshortening and innovation. A reader may further complicate things by distractedly browsing in a patiently built text.

I may note that Impatience here is not a vice, but as in Aristotelian ethics one extreme at the edge of moderate direct action, adjusting to circumstances. People often take Patience too for a vice, though that was much less the case historically. That there can be a golden mean in the collection of data was suggested by Alexander Neckam, whose entire chapter “De animalibus” is worth quoting

¹ These annotations mention only a few even of recent discussions, despite my debts to others. I do not cite editions of classical and medieval texts mentioned in passing. As in old encyclopaedias, a few matters have been cited here from memory, so I may have more than the usual need for correction. From first to last, I have been grateful for Peter Binkley's attentiveness. Concordia University, Montréal, offered a degree of material support.

from his *De naturis rerum*:

It is not fitting for me to display a base matter, nor may I declare myself to know all the names of the species of animals and also not their natures. Many natures are learned through experience by daily use, and it is superfluous to commit them to writing, since they are known to everybody. Some, though, are hidden, as if nature were saying, "My secret to myself, my secret to myself." Let us pace, consequently, the middle path, so that we should not want to put forward the most common things to the public except rarely, and we should also not present ourselves as promising to unknot matters that require more subtle investigations.²

Nevertheless, with one sort of encyclopaedistic persistence Alexander could not resist adding further description of familiar domestic animals after his discussion of the human being.

One risk in using contrasted terms is simplification of mixed practice, another is that to the single contrast any other opposition can be attached. I have already risked dialectical expansion in attaching a moral terminology to forms produced, and I will later suggest a shift from ethics to economics, all as ranges of the study of culture. One analogous contrast recognisable in the Middle Ages was between grammar and rhetoric. Grammar was patient in the inculcation of models of correctness, as it remains with the authority of a dictionary. Rhetoric in contrast develops acts of speech, discourse, sometimes with the swift *fougue* of the sublime. In modes of exposition, patience is likely to develop a spatial array (as in the places used for the training of memory), while impatience may call for a narrative of dialectical corrections.³ "Description" in

² *Non est mihi turpe fateri, nec etiam nomina singularum specierum animalium me nosse, nedum naturas me nosse fatear. Multae etiam sunt naturae rerum tam cotidiano usu quam experientia compertae, quas scripto commendare superfluum esset, eo quod notae vulgo sunt. Quaedam vero adeo sunt occultae, ac si dicat natura, "Secretum meum mihi, secretum meum mihi!" [Isaiah 14:16]. Media igitur via incedamus, ut nec vulgaria nisi raro in medium proferre velimus, nec ea quae subtilioribus egent inquisitionibus enucleaturos nos fore, spondere praesumamus.* Alexander Neckam, *De naturis rerum libri duo*, with the poem of the same author, *De laudibus divinae sapientiae*, ed. T. Wright, *Rerum Britannicarum Medii Aevi Scriptores* [Rolls Series] 34 (London 1863) ch. 96.

³ Spatial and temporal encyclopaedism has been discussed by D. Huë, "Structures et rhétoriques dans quelques textes encyclopédiques du Moyen Âge," in: A. Becq (ed.), *L'Encyclopédisme: Actes du Colloque de Caen, 12-16 janvier*

the one mode is a "move" in the other. Later medieval vernacular literature developed a sense of originality and yet might still resume previous elaborated structures.⁴

1. TWO SORTS OF POLYMATH

For a call for a full array of data, consider Montaigne, in a passage I recently came across:

Combien je desire que, pendant que je vis, ou quelque autre, ou Justus Lipsius, le plus sçavant homme qui nous reste, d'un esprit tres-poly et judicieux, vrayement germain à mon Turnebus, eust et la volonté, et la santé, et assez de repos pour ramasser en un registre, selon leurs divisions et leurs classes, sincerement et curieusement, autant que nous y pouvons voir, les opinions de l'ancienne philosophie sur le subject de nostre estre et de noz meurs, leurs controverses, le credit et suite des pars, l'application de la vie des autheurs et sectateurs à leurs precepts és accidens memorables et exemplaires. Le bel ouvrage et utile que ce seroit!

Au demeurant, si c'est de nous que nous tirons le règlement de nos meurs, à quelle confusion nous rejetons nous!⁵

Montaigne, we have the feeling, already had the knowledge to perform the task he assigned to his honoured correspondent, Justus Lipsius.⁶ Montaigne's "Apologie de Raimond Sebond," from which this comes, amassed opinions on various questions. But patient compilation was not Montaigne's style, so he did not compose a history of "accidents mémorables et exemplaires" on the model of his admired Plutarch. Montaigne's writing, drawn from his own fields of familiarity, thus floated in what he deemed its own

1987 (Paris 1991) 311-18.

⁴ See P. Cherchi, "L'enciclopedia nel mondo dei trovatori: il *Breviari d'amor* di Matfre Ermengau," in: M. Picone (ed.), *L'enciclopedia medievale* (Ravenna 1994) 278, and further C.C. Bérard, "Sistema del sapere e istanze narrative nella novellistica toscana medievale," *ibid.* 333.

⁵ M. de Montaigne, *Essais* 2.12, "Apologie de Raimond Sebond," ed. P. Villey and V.-L. Saulnier 1.578.

⁶ Bérard, "Sistema" (as in n.4) 351 cites similar deference of Boccaccio toward Petrarch. Montaigne may have considered himself a man of action in contrast to what we now call intellectuals, making "mes estudes à m'apprendre à faire, non pas à escrire" 2.37 "A Madame de Duras," ed. Villey 1.784. For the distinction and the uses of excerption, see L. Jardine and A. Grafton, "'Studied for Action': How Gabriel Harvey Read his Livy," *Past & Present* 129 (1990) 30-78.

"confusion" amidst apparently chance borrowings without either repeating their original order or giving them a new definitive authority. Consequently, for Montaigne *règlement* does not proceed with the rules of a law code or in the case of *moeurs* with a manual of penitence or tree of virtues; instead, *règlement* has a more specific sense of a settlement, a handshake between friends, a tentative agreement, or an hypothesis. Montaigne, consequently, I would term an impatient encyclopaedist, shifting from one practical discussion to another.⁷

Let us pause for a moment too for consideration of Lucretius, whose opinions Montaigne often took up for reassertion and consideration. Lucretius' title, *De rerum natura*, is repeated in later encyclopaedic texts. Is his work encyclopaedic? The answer depends on one's expectations of the form and functions of the genre and mode. Unlike Isidore of Seville, who similarly wrote a *De natura rerum*, Lucretius did not have to concern himself with an inventory of the variety of things, since in his cosmology they were recombinations of the same elements. His concern was instead rhetorical, with the simplification of philosophical teachings for the conversion and consolation of his readers, according to legend having to calm his own love-torn emotions as well.⁸

Lucretius shows that cosmology provides a way of suggesting projects of encyclopaedism without filling them in. A careful and also beautiful balance had been set between exposition and invocation in the *Timaeus* of Plato (as it may have been in other pre-Socratic texts of which we have lost the whole, but still have disturbing *sententiae*). Plato's symbolic concentration made possible encyclopaedism in a short span. His suggestions of method, his confidence in reasoning and mind, led others to elaborations of a system and critical research in specialised detail, for instance,

⁷ "Je feuillette les livres, je ne les estudie pas," 2.17, Villey 1.651, cf. 2.18 (664). For the difference between Montaigne and the collections of commonplaces of his century, see B. Beugnot, "Florilèges et polyantheae: diffusion et statut du lieu commun à l'époque classique," in R. Melançon, ed., *Le Lieu Commun = Études françaises* 13.1-2 (1977) 140.

⁸ See M.C. Nussbaum, *The Therapy of Desire: Theory and Practice in Hellenistic Ethics* (Princeton 1994) ch. 5, 140-145 and *passim*, and G.B. Conte, *Genres and Readers: Lucretius, Love Elegy, Pliny's Encyclopedia*, trans. G.W. Most (Baltimore 1994) ch. 1.

Euclid's *Geometry*, the treatises of Ptolemy, and Aristotle's observations of natural history or his collections of doctrines of metaphysics (for instance, *Met. Delta*).⁹

The manner of the *Timaeus* was picked up by Bernardus Silvestris in the *Cosmographia*, with exemplary rather than exhaustive catalogues of things and places. In contrast to a memory system that fixes things in space,¹⁰ both for Plato and Bernardus the poetic side requires temporal improvisation, and for Plato catastrophe, with one version of a system being replaced by another in dialectical succession. Unity for Plato was an ethical and sage confidence through noetic insight, rather than an ordered pedagogy, schemes for which he criticised that were "grammatical" through the memorisation of Homer. Yet Platonic dialectic might also be used to find metaphorical correspondences among disparate items, so turning noesis as it were into a philosopher's stone to construct stable encyclopaedias superimposing classes of being in a radiant and complex synchronic space.

2. SOME VARIETIES OF PATIENCE

The discussion thus far has explored ambivalent and transient compounds of thoroughness and active immediacy. To fill in the canvas, a turn now is needed to more stable texts that may illustrate the other merits of docility and patience.

Isidore of Seville did cite Lucretius, but likely at second hand.¹¹ His work differed as something of a model of patience. Isidore's texts through their laborious composition are monuments confident in their piety and trusting of their sources. There was to be a continuous transfer of information, such that Isidore conceived of the *Etymologiae* as a young son (*puer*) to be fostered in the service of the Archdeacon Braulio. Braulio in contrast, when bishop, might pretend to be impatient wondering where the book was, laboured for like Rachel over seven years, *ob hoc et ego vertam preces in*

⁹ In the *Meno* Plato narrated a case of mathematical insight not prepared for by axiomatic study.

¹⁰ M.J. Carruthers, *The Book of Memory: A Study of Memory in Medieval Culture* (Cambridge 1990), and Kimberly Rivers' contribution to this volume.

¹¹ J. Fontaine, *Isidore de Séville et la culture classique dans l'Espagne wisigothique* (Paris 1959) 652.

querellam. Isidore, busy at that moment with a Church council, replied that what his state of health left uncorrected, Braulio might continue to work with when the codices came into his hand.¹² The style of the work of gathering continued with the glossators of the early Middle Ages, continuing still in the temperate productive pace of the *Thesaurus Linguae Latinae*. But the apparent completeness of the *Etymologiae* would be challenged by the new zeal for data in the lexica and encyclopaedias of the twelfth and thirteenth centuries.¹³

Rabanus Maurus provides another instance of patient encyclopaedising, *De universo* repeating long passages verbatim from the *Etymologiae*, so the panoply of things in Rabanus was not due to the discoveries of fresh research. Yet Rabanus did not simply have the patience of a copyist, since he also added what he modestly said was *necnon etiam de mystica rerum significatione*, interlacing Biblical passages that take up the natural terms. There was fresh work too of rearrangement, so that the Deity began the topics of the new treatise. If piety was the object, Rabanus did not have to be original with the materials he took for reassignment, or critical either. The piety makes Rabanus the very model of one sort of patient encyclopaedism, in which one must start from what was already there. The encyclopaedia for him was the storeroom of an inheritance.¹⁴ Both Rabanus and Isidore thus implied an inalterability of their findings.

Among patient encyclopaedists, I may also propose my old friend, Gregorius de Monte Sacro, whose *Peri ton anthropon theopoiaseos* I have worked with on and off for some time, breaking off work rather frequently out of fear of its centripetal attraction. The

¹² Ep. A, B, 4 "Praemissa," and 5, ed. Lindsay.

¹³ Seen in detail, encyclopaedic materials were always shifting; see, e.g., C. Beck, "Approches du traitement de l'animal chez les encyclopédistes du XIIIe siècle: L'exemple de l'ours," in: Becq, *L'Encyclopédie* (as in n.3) 165.

¹⁴ See C. Meier, "Vom Homo Celestis zum Homo Faber: Die Reorganisation der mittelalterlichen Enzyklopädie für neue Gebrauchsfunktionen bei Vinzenz von Beauvais und Brunetto Latini," in: H. Keller, K. Grabmüller, and N. Staubach, eds., *Pragmatische Schriftlichkeit im Mittelalter: Erscheinungsformen und Entwicklungsstufen (Akten des Internationalen Kolloquiums 17.-19. Mai 1989)*, Münstersche Mittelalter-Schriften 65 (München 1992) 159 and *passim* for Rabanus and other *res-mirroring* encyclopaedists.

text was itself something of a lifework for its author, though he did some other writing.¹⁵ The original labour of Gregorius was the versification in Latin hexameters of natural and Biblical lore in a hexaemeral seven-book structure, probably complete by 1231. The distinctive patience of the codices was to surround the verse with glosses that reproduced the very sources for the lore. But it can also be said that Gregorius was somewhat less a patient collector than others, less voluminous than Albertus Magnus or Vincent de Beauvais would be somewhat later, less exact than Bartholomaeus Anglicus, and unlike him in not identifying his sources. A question by Peter Binkley led me to discover that the text does not include the *falco peregrinus*, though the lore about such a bird could be verified elsewhere and had considerable practical interest to Frederick II (during whose reign and in whose kingdom Gregorius was working), as the imperial *De arte venandi cum avibus* indicates.

Gregorius was abbot of the Benedictine monastery of Monte Sacro in Apulia. Monastic encyclopaedism seems typically patient in its transmission of prior texts, as in the reliance of Bede and Rabanus Maurus upon Isidore. No other genre, I think, so encourages conservatism as the encyclopaedia. We still value dictionaries that promise the greatest completeness in their listing both of new words and old, even while they must always cut back to be of reasonable size.

Although inclusiveness requires patience, the principle for the taxonomy of classes of being, a defining feature more clearly apparent in earlier encyclopaedias of *res*, can in itself be stated more briefly, as can the desire and admiration of order. In a patient encyclopaedia we can test taxonomy against details (to see, for instance, if insects are classed as birds or as beasts). But a system, sketch, or

¹⁵ See E.C. Ronquist, "The Early-Thirteenth-Century Monastic Encyclopedia in Verse of Gregorius de Monte Sacro," *Studi Medievali* 3rd ser. 29.2 (1988) 841-71, and U. Kindermann, *Der Dichter vom Heiligen Berge: Einführung in das Werk des mittellateinischen Autors Gregor von Monte Sacro, mit Ersteditionen und Untersuchungen* (Nürnberg 1989), and *id.*, ed., *Flores Psalmorum: A Hitherto Unknown Jesu-Psalter by the 13th-Century Latin Author Gregory of Montesacro* (Concord 1990). See further Filippo Tamburini, "Gregorio, abate del monastero della SS. Trinità di Monte Sacro sul Gargano († 1250 c.) e la sua opera poetica," in: *Miscellanea Bibliothecae Apostolicae Vaticanae* 1, ed. Leonard E. Boyle, Studi e testi 329 (Città del Vaticano 1987) 147-195.

methodology of taxonomy can be presented in a short lyrical space, as in the cosmological verses of Boethius *De consolazione Philosophiae* or Francesco d'Assisi's "Cantico delle creature." Nature, Love, Concord, the Word, Mind may be invoked with praise as the initial seed of a longer discussion. The creeds defining orthodox belief may also be quickly stated.

A brief sketch can in turn be patiently expounded. While lyric may burst open in a moment's insight, and narrative shifts away from earlier incompleteness, ignorance, or error, commentary may amass a synchronic panoply of sheer possibility, reinforcing a text with the claims of a tradition. An example of the encyclopaedic move of a commentary is the enumeration and discrimination among types of dreams Macrobius made when tackling Cicero's *Somnium Scipionis*. A case, as it happens, of a return to a lyric sketch is Chaucer's summary of the argument of the *Somnium* in a single stanza of *The Parliament of Fowls*, a deliberately fragmentary work.¹⁶

The genre of florilegium also sits between patience and impatience. The compiler was making excerpts and notes from large texts over a long period of time, but presumably to use or teach them in rhetorical and poetic practice. A whole codex may be a conglomerate *zibaldone* without much internal connection. But one sort of compilation would make a system out of casual statements in a narrative or persuasive text. So it was possible to compose centos from verses of the *Aeneid*. The *Moralium dogma philosophorum*, attributed to Guillaume de Conches, compiled a moral system from remarks chiefly of Cicero and Seneca, and was influential on later encyclopaedic and lexical texts. Peter of Waltham in the late twelfth century hoped that his *Remediarium Conversorum* would be an elephant to carry a reader through the voluminous flood of Gregory the Great's *Moralia in Job*.¹⁷

¹⁶ Chaucer, among the impatient encyclopaedic vernacular writers, did also recapitulate Macrobius' full classification of the types of dreaming in his *House of Fame* and more briefly in "The Nun's Priest's Tale," but to raise the sceptical question how one would ever know which nocturnal event was indigestion, which prophecy (whence much later the busy filing clerks of Kafka).

¹⁷ Peter of Waltham, *Remediarium Conversorum: A Synthesis in Latin of "Moralia in Job" by Gregory the Great* Pref. 33, ed. J. Gillea (Villanova 1984) 28.

3. IMPATIENCE

Where do pithy statements have their life? Is it only in collections that put them into company, such that an ingenious saying seems more verifiable or even veridical if was known to have come from the *Catonis Disticha*? If we want now to know if something was proverbial in the Latin Middle Ages, we have to consult Hans Walther. But it is not that the saying existed to be collected. What I am leading to is the proposal that lore can be dislodged from its containers and does not have to be transported within a larger package of similar statements. The lore can perform a rhetorically specific function, recalled to make a moment of persuasion more vivid and also more evidently authoritative. The audience for rhetoric is peremptory; it doesn't want the whole treatise once again. Faced with the inquisitorial curiosity of Polonius, known to be also a paternal fountain of proverbs, Hamlet impatiently reduces his own suspicious and deconstructive reading of court practices to "words, words, words."

I am thinking of a change in encyclopaedism exemplified in Dante. For Dante the commentarial method of exposition was a wrong turn in his *Convivio*. The *Commedia* made something else of the conveying of lore. Its wonderful move was not to rehearse everything between heaven and hell, and not everything in history since the first of mankind, but only what fitted its purpose. Adam and Eve show up at the end, not the beginning, and never the successive generations of their descendants; Dante's own genealogy gets more space. His poetic consolation of himself as an historical man was in one of its moments encyclopaedic, with a certain numerical fullness and a selective reference to an alpha to omega of categories. The gesture aiming at completeness remains—there is the consistent pairing of Biblical and classical exempla in the *Purgatorio*, the astronomical scaffold of the *Paradiso*, exposition of physical and mathematical doctrine and the tenets of faith and morals—but there is also material in Dante's poem of a sort not found in the cosmological encyclopaedias, such as observations on politics and *petites mœurs*, analogies to remembered persons and places, and a technique of exposition by question, reproof, and resolution. History and biography are limited to moments of mortal engagement. Dante (or possibly a very early commentator) in the

"Letter to Cangrande della Scala" put his poem in the service not of speculation—the universal mirroring evoked by encyclopaedists—but of ethics (Ep. 10 to Cangrande della Scala 16); but even in this his narrative exposition differed from that of the *Trésor* of Brunetto Latini and other ethical encyclopaedias.¹⁸

Another sort of impatient reference occurred with the Latin tags in William Langland's *Piers Plowman*. Langland's English discourse in verse seems to anchor itself in marginal and incorporated Latin tags. Yet it has been shown that it was not always the tags themselves that sum up or initiate discussions, but rather portions of the original text that had not been quoted afresh.¹⁹ And the clarifying allusion might not even come from the most ancient original, but rather from glosses surrounding it, and research has begun to find just what works of reference Langland was using. Whereas the codices of Gregorius de Monte Sacro piously preserved in the margin a fuller version of an original being versified, Langland cut short his notations, perhaps we may suppose to avoid cutting into the flow of a metrical and mental technique of continual variation.

Langland never made a final stop to his experiment in discourse, keeping his text open from section to section and through three or four revisions. In Jean de Meun's *Roman de la Rose* a cycle of discourse was brought to an end, but the flowering and deflowering that terminate the story are either so cynical or so frivolous that a reader would cease to take its voluminous content as stably encyclopaedic. The *Roman* is rather an exercise in styles of voicing, entertaining choices ranging from reason to hypocrisy. To succeed as rhetorical analysis, it needs readers who can recognise the encyclopaedic breadth and enumeration of its topics, and share an impatience for the neutral exposition of their contents. One can imagine a sophisticated student of Arts in that position, someone who would later delight in the uncensored lists of Rabelais, accumulating and disgorging at nearly the same moment.

¹⁸ See further A. MacIntyre, *Three Rival Versions of Moral Enquiry: Encyclopaedia, Genealogy, and Tradition* (Notre Dame 1990) 80, 145.

¹⁹ J.A. Alford, "The Role of the Quotations in *Piers Plowman*," *Speculum* 52 (1977) 80-99, and J.B. Allen, "Langland's Reading and Writing: *Detractor* and the Pardon Passus," *Speculum* 59 (1984) 342-62.

But the tide is not always in the direction of impatience and originality. Jacopo Alighieri, one of Dante's sons, made, in his *Dottrinale*, a cautious repetition of basic lore, more numerically perfect than the *Commedia* with a plan of 60 sections of 10 six-line stanzas each, to give *l'esser dell'universo* (1.5) with basic information about *astrologia e philosophia* [sic] *naturale e morale* (37). Turning narrative into doctrine, the last six sections summarise the *Commedia*, and like his father Jacopo held that the intellect proceeded from the sense knowledge of nature (37.49). Still, there is nothing new item by item in the lore here, except of course for the inclusion of Dante in a basic survey, an arrangement Earth upward, and the title, which places the work in the new line of an encyclopaedic *opus doctrinale* begun by Brunetto Latini.²⁰

4. MODES OF WORK

There were evidently varying degrees of zeal for the full recapitulation of previously recorded material. It is inviting to speculate about the causes and implications of the different patterns. Practical differences of use are clear. On the one hand, there was the portable and succinct encyclopaedia of Bartholomaeus Anglicus, and on the other, the massive and later even further enhanced register of Vincent de Beauvais. For a more complex contrast, there was the learned and rambling discourse on political philosophy of John of Salisbury's *Polycraticus*, rich as it happens in exempla, with on the other hand the variety of systematic and well tabulated treatises of the Canons of St. Victor. There were florilegia and also the relatively systematic *Moralium dogma philosophorum*. Vernacular literature sometimes engaged in full enumeration on behalf of a new audience, but it might bracket *code* for the sake of a self-dramatising *parole* (and sometimes do the reverse, as with the Alighieri, son and father). A more abundant commerce in books and the development of indices and of texts that were for reference rather than reading permitted liberation from encyclopaedic reca-

²⁰ Jacopo Alighieri, *Il Dottrinale*, ed. G. Crocioni, Collezioni di Opuscoli Danteschi Inediti o Rari 26-28 (Città di Castello 1895). See further C. Meier, "Cosmos politicus: Der Funktionswandel der Enzyklopädie bei Brunetto Latini," *Frühmittelalterliche Studien* 22 (1988) 339.

pitulation. Nevertheless, there remained a variety of practices. Thus Dante's *Commedia* was so curt as to be enigmatic, but its rhetoric was institutionalised with the surrounding commentary of a classical text, several commentators, notably Cristoforo Landino, who also worked on Vergil, competing to be its Macrobius.

Is the distinction of ethical habits allied to economic attitudes toward the accumulation and employment of wealth? In pursuing briefly the analogy we can bear in mind that medieval authors would have strongly distinguished intellectual attainment from material wealth, though they might still have regarded knowledge as an acquisition, variously calling its pursuit cupidinous curiosity, erudition, magic, magisterium. For intellectual wealth it would be agreeable to imagine the richest person in the world, having amassed all available lore. She would be the figure of Sophia, her collected treasure the kingdom of heaven, beautiful in the completeness of its inventory (a notion authorised by Ecclesiasticus 1, 26). But say Sophia's treasure is not in a strongbox (the jewelled walled casket of the New Jerusalem, as the Middle English poem *Pearl* envisaged it), but rather invested and in circulation. Lore then becomes topics available for reference. Ostentation is not in that case how Sophia assures herself of influence, but rather efficacy in securing persuasion through quickly found and accurate reference.

If the lore of information is a treasure it must be kept intact in its abundance and be added to, as in the monastic recapitulations of Bede and Rabanus Maurus. Such earlier encyclopaedias we might call landed texts, like a great feudal estate or monastery capable of providing for itself and centring its influence over others, its claims established by the continued presence of an ostensible tradition, as if by the material object of a magnificent book.²¹ Researchers should look more closely at the economic and with that the cultural implications of each early encyclopaedia.²²

²¹ See, e.g., M. Bordeaux, *Aspects économiques de la vie de l'Église aux XIVe et XVe siècles*, Bibliothèque d'Histoire du Droit et Droit Romain 16 (Paris, 1969) 313-39, and the nuanced detail provided by C. Violante, "Monasteri e canoniche nello sviluppo dell'economia monetaria (secoli XI-XIII)," in: *Istituzioni monastiche e istituzioni canonicali in Occidente*, Pubblicazioni dell'Università Cattolica del Sacro Cuore, Miscellanea del Centro di Studi Medievali 9 (Milano 1980) e.g., 374, 379, 387, 405.

²² M. de Jong, "Old Law and New-Found Power: Hrabanus Maurus and the

Later impatient encyclopaedistic writers began to treat the material they inherited as investment capital, whether working more or less on their own (e.g., the *Magnae derivationes* of Uguccione da Pisa, making an alphabetical vocabulary from twelfth century and earlier sources) or with a workshop like Vincent de Beauvais. They were encyclopaedistic because they wanted to have what we now call data banks, their practical work as canon lawyers or friars requiring precedents for fresh application in the diverse occasions of cases and sermons. Notarial archives are now the stuff of economic and social history, but they were accumulated case by case; chronicles too, which might once have started with Adam or legendary kings, may permit themselves a particular point of view, relating a new and unsung exploit or a sage and possibly saintly living person. For preachers and vernacular writers working with concordances, dictionaries, and encyclopaedias, having already been schooled through an *Historia scholastica* and books of sentences, there were many moments in which Scriptures and classics were not monuments to glory in, but banks to be drawn on.²³ The term *mons pietatis* devised in the later Middle Ages for an investment fund also suggests how an impatient encyclopaedist might view the accumulated treasure of lore. A friar preparing an encyclopaedic manual for preachers might have known of the distinction probably by Peter John Olivi in the later thirteenth century between *simplex pecunia* and *capitale*, money given for some use in an association of merchants.²⁴

Old Testament,” in: J.W. Drijvers and A.A. MacDonald (eds.), *Centres of Learning: Learning and Location in Pre-Modern Europe and the Near East*, Brill’s Studies in Intellectual History 61 (Leiden 1995) 161-176, gives a stimulating discussion of texts as *munera*.

²³ See M. and R. Rouse, “*Statim invenire*: Schools, Preachers, and New Attitudes to the Page,” in: R.L. Benson, G. Constable, with C.D. Lanham, eds., *Renaissance and Renewal in the Twelfth Century* (Oxford 1982) 222-23, who also indicate a new sense of patience in respect for *originalia* to which reference tools referred. The article is now collected in their *Authentic Witnesses: Approaches to Medieval Texts and Manuscripts* (Notre Dame 1991), which affords richer evidence.

²⁴ The discussion of *capitale* occurs in uncertainly authentic passages of Peter John Olivi’s *De emptiōibus*, where it is glossed, *in quantum est capitale, idest in quantum vere et non fide est in mercationes fiendas deputatum et destinatum*; see G. Todeschini, ed. *Un trattato di economia politica francescana: il “De emptiōibus et venditionibus, de usuris, de restitutionibus” di Pietro di Giovanni Olivi*,

Although I have been using the word "treasure" to describe monastic encyclopaedic accumulation, it seems rather to have been relatively an innovation of Brunetto Latini's, from whom a lord holds treasure *non pas pour son delit solement, mes pour acroistre son pooir* and so a sign of the new arts and rhetorical-political orientation of his *Trésor*.²⁵ Impatient Montaigne wrote in a concluding dedication:

J'ay mis tous mes efforts à former ma vie. Voylà mon mestier et mon ouvrage....J'ay désiré de la suffisance pour le service de mes commoditez presentes et essentielles, non pour en faire magasin et reserve à mes heritiers.²⁶

In arguments of social criticism, the notion of a treasure that is not used except for pomp came to seem disturbing; it looked like hoarding. In the course of the twelfth century emphasis was given to the notion that nothing was learned that was not also taught.²⁷ Even Aristotle advanced the opinion that "being wealthy consists in use rather than possession."²⁸

I was recently asked if "erudition" was a synonym of "wisdom." I had to laugh. I subsequently had my attention drawn to Aulus Gellius' citation of a "noble Ephesian," evidently Heraclitus, πολυμαθίη νόον ού διδάσκει, "Polymathy doesn't teach Nous."²⁹ Erudi-

Istituto Storico Italiano per il Medio Evo, Studi Storici, fasc. 125-126 (Roma 1980) Appendice 110, and also 81-82, 112; and A. Spiccianni, *Capitale e interesse tra mercatura e povertà nei teologi e canonisti dei secoli XIII-XV* (Roma 1990) 252 and chs. 1-2.

²⁵ Prologue 1.1.1, cited from Meier, "Cosmos politicus" (as in n.20) 325, n.37, with full discussion 324-334, further Huë, "Structures" (as in n.3) 316-18.

²⁶ *Essais* 2.37, "A Madame de Duras," Villey 1.784. Dante's children of exile were among his earliest commentators, the artefact of his poem their first inheritance.

²⁷ E.C. Ronquist, "Learning and Teaching in Twelfth Century Dialogues," *Res Publica Litterarum* 13 (1990) 239-56.

²⁸ *Rhet.* 1361a-b, which I cite from O. Langholm, *Wealth and Money in the Aristotelian Tradition: A Study in Scholastic Economic Sources* (Bergen 1983) 66.

²⁹ *Praef.* 12; Gellius indicated that his notes on points worth remembering (*commentarii*) would preserve only *modica* of his reading for busy men, whereby he allied himself with a rhetorical tradition content with a loose familiarity with the *orbis doctrinae*. See further B. Zimmermann, "Osservazioni sulla 'Enciclopedia' nella letteratura latina," in: Picone, *L'enciclopedismo* (as in n.4) 44, and W. Trimpf, *Muses of One Mind* (Princeton 1983) particularly 1-24, 175-193.

tion is an admirable quality, holding many abstruse matters in active memory and discriminating among their grades of authenticity. The patient phase of education may take such forms as indoctrination, repetitive training, *Wanderjähre*, bibliography, and the goal, *gnosis* or *sophia*, has not necessarily been impatient with the slow initial period of training. Still, to repeat myself, wisdom is best dialectically distinguished from accumulated erudition, the way Plato distinguished *nous* from *epistémé* (Rep. 7 534).

Wisdom we can imagine would enact knowledge with a distinctive energy, *sublime*, *forte*, *magnanimum*, as Seneca called true liberal study (*Ep. mor.* 88.2). Its topics might lose their stability of arrangement, its style be Montaigne's. For the concentrated intuition that might inspire slow accumulation, I am happy in the particular situation of the first presentation of this paper to call on the very erudite Groninger Johan Huizinga, who helped us remember a wisdom at play in Proverbs 8-9:³⁰

cum eo [Domino] eram, cuncta componens. Et delectabar per singulos dies, ludens coram eo omni tempore, ludens in orbe terrarum; et deliciae meae esse cum filiis hominum. (Prov. 8, 30-31)

The seven columns of the house of this Sapiencia became an encyclopaedic topic, but the structure allegorised as Seven Arts or Seven Virtues was in the speech of Proverbs only scenic support to an active *convivium* (as my Parisian Vulgate of 1927 heads the passage), one that would restore *paideia* to its original ludic sense and still earnestly result in a disciplined but zealous greatness of soul. Sapiencia's call for the vigour of both active participation and receptive gratitude is no longer simply patient or impatient:

Venite, comedite panem meum, et bibite vinum quod miscui vobis, Relinquitte infantiam, et vivite, et ambulate per vias prudentiae! (Prov. 9, 5-6).

³⁰ J. Huizinga, *Homo Ludens: A Study of the Play Element in Culture* (1938), anonymous English trans. based on Huizinga's (1950, Boston 1958) 212.

ON THE DEFINITION OF AN ENCYCLOPAEDIC GENRE IN THE MIDDLE AGES

BERNARD RIBÉMONT

This lecture begins with a statement made recently by J. Le Goff during the colloquium at San Giminiano: "l'inexistence du terme «encyclopédie» au Moyen Age...[a] une conséquence méthodologique décisive pour l'historien. Il doit légitimer l'emploi de ce terme...et il doit d'abord rechercher si le terme a des équivalents plus ou moins approximatifs à l'époque dont il parle."¹ This statement summarises the crucial problems in the study of medieval encyclopaedism, in the wake of several earlier fruitful approaches by M. de Bouïard, M. Paulmier-Foucard, and, especially, C. Meier-Staubach.

Taking this statement as a starting point, two fields of research present themselves. The first concerns the historico-generic problem of the definition of an encyclopaedic genre in the Middle Ages. In other words, is it possible to find—by a quasi-Aristotelian method—some criteria that will allow us to determine whether a text is or is not an encyclopaedia? The second field raises the following issue: to what extent were medieval encyclopaedists conscious of writing a text belonging to a definite genre? If they were, the historian has to try to determine—in terms of their terminology, conceptions, etc.—what the set of constants followed by every author may have been.

What elements for dealing with such a problem are at our disposal? Specialists in Antiquity have written, albeit in an incomplete way, the history of the concept of the *enkuklios paideia*, and they have identified a corpus of texts as "ancient encyclopaedias": for instance, the works of Varro or Pliny the Elder. On the one hand, a philosophical and didactic dimension is fundamental to these works: the ancient idea of *enkuklios paideia*, especially during the imperial period, included questions about the classification of the sciences, the status of the liberal arts, and the progress of the hu-

¹ J. le Goff, "Pourquoi le XIII^e siècle a-t-il été un siècle d'encyclopédisme?" in: *L'enciclopedia medievale*, ed. M. Picone (Ravenna 1994) 25.

man soul to *sapientia*. On the other hand, the desire to gather a wide ensemble of knowledge accessible to the middle-level reader seems to have been very strong, as can be seen in Pliny's *Historia naturalis*: there, the encyclopaedic text appears as a "book of Nature."

Moreover, for the period that follows the Middle Ages the *Encyclopédie* of Diderot and d'Alembert naturally comes to mind, the model for the modern concept of encyclopaedism. Behind the concept of the encyclopaedia, we see therefore the idea of an organised compendium of knowledge, presented with serious, but limited, information; a voluminous work but nevertheless accessible to the student, the self-taught, the amateur, etc., who is eager to learn, to discover the *res naturales* and the human arts; a large book that appears to be a summary of contemporary knowledge. The modern encyclopaedia is a *locus memoriae* that can be read, studied or simply consulted. Furthermore, it carries the idea of a body of knowledge that is not reserved exclusively for the happy few.

As regards the Middle Ages, scholars have recognised for a long time—since the pioneering work of L.M. Capelli²—the importance of certain texts, which were identified as encyclopaedias almost arbitrarily. Indeed, a corpus of encyclopaedic texts was established by different critical traditions. The establishment of that corpus was done on an empirical basis. Founded on an unstated concept of encyclopaedism (without any real distinguishing criteria), this empiricism has led to a tradition that allows one to qualify as encyclopaedias a great number of didactic texts. A precise historiographic study shows that vagueness often dominates, as M. de Bouïard noticed: "on doit reconnaître que les ouvrages médiévaux que l'on appelle encyclopédies sont extrêmement divers quant à leur volume, à la nature de leur contenu et, partant, quant à l'usage auquel les destinaient leurs auteurs."³

However, in that literary tradition, a corpus can be isolated which I will call the "central core," in which we find texts such as the *Speculum majus* of Vincent of Beauvais, the *De proprietatibus*

² L.M. Capelli, *Primi studi sulle enciclopedie medioevali. Le fonti delle enciclopedie latine del' XII secolo* (Modena 1897).

³ M. de Bouïard, "Réflexions sur l'encyclopédisme médiéval," in: *L'encyclopédisme*, ed. A. Beck (Paris 1991) 281.

rerum of Bartholomaeus Anglicus, etc. There is no need to give a complete list of these works, since they are well-known. Around this core some texts pose problems: for instance, the *Liber floridus* of Lambertus of Saint-Omer, the *Physica* of Hildegard of Bingen and the *Philosophia mundi* of William of Conches. Finally, we must not forget that all the critical traditions take it as self-evident (explicitly or tacitly) that the *Etymologiae* of Isidore of Seville occupied a privileged position throughout the Middle Ages. To summarise, empirical investigation reveals a central core, with a range of satellites and one text that is clearly fundamental.

It is impossible to start an enquiry into the medieval encyclopaedic genre without referring to this set of different elements. However, in the limited frame of this paper, my purpose will not be to evaluate all the elements playing a part in the constitution of the genre, but to indicate some leads that might be useful in answering the initial questions.

The medieval encyclopaedic tradition was founded under Isidore's pen. Indeed, even if Isidore, knowing the second book of the *Institutiones*, took from it his speech on the liberal arts, his own procedure is quite different from that of Cassiodorus. Cassiodorus proposed a reading program to his monks, gathering sacred letters and secular ones—giving first place to the former—and built an educational course for the micro-society of monks, who needed to find their way in a library in search of the *books* they needed to improve their knowledge of the *sacra pagina*.

Isidore handled the problem differently, because he embedded it in a wider and far more systematic perspective. Here there is no question of a *catalogue raisonné*, but rather each rubric is justified by two elements: in the first place, the book of *Etymologiae*, as indicated in the title, is entirely based on a system that could be summarised in the Isidorian maxim: *etymologia est origo*. This is a unitary view of Creation as revealed by the *nomen*, and has the sense of continuity, linking man to the origin of Nature, that can be read in the *res* signified by the *verba*. If Isidore is Augustinian, he is so in a double sense: first of all, he establishes on the basis of an Augustinian semiology a *systematic* method for exploring signs, using the material furnished by the ancient grammarians; secondly,

he exploits the logic of the *De doctrina Christiana* to its very limits, building a real Christian *enkuklios paideia* which reserves a prominent place for the natural sciences and the mechanical arts, going beyond the strict frame of the liberal arts.

Isidore's message therefore fills a void by supplying Christian culture with the essential knowledge that the first Fathers could have possessed. This knowledge was wide-ranging, since it included, as one might deduce from Augustine's *De doctrina Christiana*, the natural sciences, numerology, the seven liberal arts, the mechanical arts, etc. It is on this knowledge, the fundamentals of which often elude him because of the lack of texts, that Isidore wants to confer a structured and coherent form, articulated according to a systematic and logical method, that is to say a scientific approach. Although he sometimes did not respect coherence—and could it always be respected?—Isidore undertook to write what I would like to call a “structured compilation,” re-establishing the link with the authorities of Antiquity, with the poets, the philosophers, both pagan and Christian, unified in the way Isidore set forth, illustrated, and justified his etymological method. This etymological method, which had a prosperous future ahead of it, laid the foundation of medieval encyclopaedism.

The aim of the medieval encyclopaedist was to transmit knowledge stemming from a universe of learning that preceded the encyclopaedic text, including the works of the ancients, but also exploiting the works of the *moderni* such as glosses and commentaries. Thus encyclopaedism took its place in a process of “didactic transposition.”⁴ In fact, the encyclopaedist aimed at transmitting learned knowledge to a reader who was assumed to expect it. Thus there is *action* in the sphere of learning and knowledge. Generally, critics tend to view this action in terms of popularisation: the encyclopaedist comes down to the level of his public, giving to this public a middle-level knowledge abstracted from high-level treatises. Although this aspect is important in the case of encyclopaedic literature, it is not sufficient to establish a definition of encyclopaedic action: for example, Isidore of Seville did not popularise, but he presented in a broad sense the basic knowledge of his own time.

⁴ Cf. Y. Chevallard and M.A. Joshua, *La transposition didactique* (Grenoble 1985 [1991]).

The central point is to transmit from a basic body of material (the high-level knowledge, coming from the *auctoritates*) a set of objects of knowledge to an expectant public. This scheme may appear too simplistic; and it is so if we consider it as an elementary communication diagram of the type "transmitter–receiver." The process is more complex, and we need to substitute for the binary diagram a triangular one. As didacticians have shown, didactic communication is not of the type "transmitter–receiver," but of the type "object to be taught–taught object–received object."⁵ Any didactic operation implies such a process, because the distance between the object to be taught and the taught object legitimates the teaching operation itself. Therefore, with regard to the didactic/encyclopaedic text, its function is not really to teach the highest-level knowledge, but to give a sufficiently broad access to this knowledge, which authorises its very existence and value. Consequently, there is always a bias in the didactic process, arising in particular from the phenomenon of authority and the *didactic orientation*.

Such a process, *mutatis mutandis*, can be applied to the analysis of encyclopaedic writing in the Middle Ages, because it is always dependent on external considerations, such as exegesis. For example, if a medieval encyclopaedist wanted to describe the structure of the heavens, he did not give a lecture in astronomy, nor a philosophical lesson in cosmology. He only transmitted what was necessary to the reader (who accepted the agreement) for a prescribed aim: to read the hidden messages of the Bible, to be a well-educated prince, etc. The reception of the encyclopaedic text introduces the reader to three types of processes: in the first case, he respects the *didactic contract*: for instance, he devotes himself to the hermeneutic. In the second case, he will tries to reconstitute the high-level knowledge; for instance, he begins to read Aristotle or the Arabs. Finally, he investigates other branches of knowledge or writing: poets such as Jean de Meun or Christine de Pizan, for instance, rest a part of their own authority on scientific discourse.

The didactic/encyclopaedic transposition is also reflected in the

⁵ We can recognise here the well-known *didactic triangle*; cf. for instance A. Armand, M. Descotes, J. Jordy, and G. Langlade, *La séquence didactique en français*, 2nd ed. (Toulouse 1992) 13 ff.

text itself: if there is transposition—from high-level knowledge to encyclopaedic knowledge—with the building of the historical family of encyclopaedias, there exist constant characteristics, appearing in networks of “required” matter: the *mirabilia* of India, stars and planets, God and angels, animals and monsters, etc. And a genre can be evaluated precisely through its constant characteristics; moreover, the presence of constants is all the more important in this case because of the prominent place that medieval culture gave to authority.

Finally, it may be noted that encyclopaedic texts—understood as a real tradition—give birth to a manner of writing, an *encyclopaedic style*. It is not because a text uses different elements compiled from a set of authorised works that a real encyclopaedic transposition operates. From a stylistic point of view, the encyclopaedic discourse is characterised by the presence of certain elements. These include, first of all, continual references and quotations which make the text seem like an *accessus ad auctores*, as shown by the recurrence of expressions such as *ut dixit*, “siccomme dit,” or the appearance, often abrupt, of the name of an *auctor* followed by a quotation. Furthermore, the encyclopaedist’s mode of expression is that of statement and definition. His desire is not to incorporate his knowledge into a narrative structure, or even a discourse that is both didactic and logical, whose aim is to demonstrate (in an almost mathematical or philosophical way). The didacticism of the author manifests itself only through example, illustration and images. The factual content always appears as being, and not as having been demonstrated: the objects of medieval encyclopaedic knowledge are simply recorded in writing; this, and this alone, is their justification. Even in the juxtaposition of opposing opinions there is a kind of certitude in the encyclopaedist, who is conscious of saying what is, what was, or what can be, in an *objective manner*. In short, the encyclopaedist does not give advice. The most frequently employed verbs in the encyclopaedic discourse are *esse*, *nuncupare*, *vocare*, etc.; the tense and form principally used is the third person present. To summarise, the encyclopaedic style is that of assertion, in a discourse in the present tense, made up of a juxtaposition of elements presented with an objectivity justified by the authority from which encyclopaedic thought derives a large part of its origins.

On this basis it is possible to give an abstract model which could serve as a basis for the study of medieval encyclopaedias. I would like to insist upon the term "basis." This model arises from an analytic and synthetic process: if medieval encyclopaedism truly exists, then it corresponds to a model; if this model can be applied to a corpus of texts, then this corpus is in fact composed of encyclopaedias. In other words, the *encyclopaedic model* is not closed, and the confrontation between the basic model and the texts implies that there will be modulations. But these can *only* be modulations, if we are to remain precise and not to fall again into empiricism. Furthermore, this model is essentially structural, and hence abstract: one must therefore understand that any encyclopaedic text is a realisation of the model operating on the text.

THE ENCYCLOPAEDIC MODEL

Any medieval encyclopaedia presents knowledge organised in units transposed from high-level and authorised knowledge to current and contemporary knowledge, with a particular orientation: to present the properties of res naturales, that is to say, practically all the elements of Creation, elements that are always considered as coming from the will of God. The effective realisation of the encyclopaedic project necessarily implies that a choice must be made with regard to that limit, a choice that is conditioned by the awareness of being able to gather this totality (the summa) and the networks of correspondences that exist in Nature; these correspondences imply that each res naturalis is linked to others of its own kind. The knowledge of Nature is therefore connected to a cycle of knowledge, mutatis mutandis the enkuklios paideia of the Ancients, and the contents of encyclopaedic knowledge derive naturally from this cycle in its totality (principally, but not exclusively, the trivium and quadrivium).

The encyclopaedic text is a locus memoriae of knowledge that is stated rather than demonstrated, with a kind of energy coming from action in the sphere of general knowledge: this action arises from an orientation, necessary in encyclopaedic writing, that centres its objects of study on their reception: from the simplest expression (a simple definition as in a dictionary) to the most com-

mon, i.e. the redeployment of encyclopaedic knowledge in the field of religion, exegesis, or politics.

The historical family of medieval encyclopaedias is created by the presence of several constants, produced by the didactic constancy arising from the encyclopaedic transposition.

Encyclopaedic writing implies a philosophical and theological question about the system of the world and/or the way in which it can be apprehended through knowledge conditioned by its very organisational modes: the liberal arts, disciplinae, the classification of the sciences, etc. This knowledge is never presented directly through its constituent concepts, the latter remaining at best allusive, because the transposed knowledge is always the fruit of compilation and of an attempt to popularise high-level knowledge for the benefit of a middle-level public essentially composed of clerics. The aim of the encyclopaedist is not to give access to the highest science, but to provide a set of knowledge enabling a better understanding of a certain physical reality and especially of the canonical texts.

Any medieval encyclopaedic text must be thought to follow an initial prototype from which all the other types of texts composing the historical family can be deduced by derivation: from the zero degree, i.e. simple epigonal copying, to the radical derivation, which reduces the prototype to a simple quotation, with degrees of anonymous or explicit borrowing of contents or structure in between. We can establish that the initial prototype of medieval encyclopaedias is Isidore's work, the Etymologies.

It is easy to verify that the traditional encyclopaedias as recognised by scholars (the so-called core) respect the previous conditions. Indeed, each of these works offers a more or less complete book of Nature that provides a moral reading, generally assisting an investigation of the *sacra pagina*. Each uses the work of Isidore as a model and a source, as the many quotations from the *Etymologies* show. Each one of these texts includes, at varying levels, an almost philosophical reflection on the organisation of the universe together with considerations on the liberal arts and/or the classification of the sciences. We find a wide set of constants: animals, stones, *mirabilia*, microcosm/macrocosm, etc. All of these texts are the

fruit of compilation, as is often explained in the prologues (e.g. of Thomas of Cantimpré, Bartholomaeus Anglicus, Vincent of Beauvais, etc.).

Now I would like to consider the great encyclopaedic texts of the thirteenth century, and most particularly explore the prologues of these texts. It is there that we can better understand the thought of the author concerning his own way of writing and of composing his compilation. It is in these prologues that the consciousness of writing in a given genre can be apprehended most clearly.

In investigating the prologues, a certain stability with regard to the relationships between the encyclopaedist and his writing can be found. A post-Isidorian encyclopaedia almost always contains a prologue that aims to define the text and the intentions of the writer. From one text to another we find the same keywords used by the authors in an apparently systematic way. A set of constant characteristics is thus created. These constants present three main fields of research: the first concerns the author's conception of the aims of his writing; the second is linked with the book itself; the third, the most important for our purpose, is the very definition of the encyclopaedic genre, as determined by the writers themselves.

THE PROFESSION OF ENCYCLOPAEDIST

The prologues of encyclopaedias reveal that the authors possessed a real consciousness of their purpose in writing. We find here a lexical field with terms like *mores*, *edificatio*, *evigilatio*, *vivere in Domino*, etc. For instance, his aim in writing is quite clear to a man such Bartholomaeus Anglicus:

*Utile mihi et forsitan aliis, qui naturas rerum et proprietates per Sanctorum libros nec non et Philosophorum dispersas non cognoverunt, ad intelligenda enigmata Scripturarum, que sub symbolis et figuris proprietatum rerum naturalium et artificialium a Spiritu sancto sunt tradita et velata...*⁶

We find the same attitude in Thomas of Cantimpré, who compares the knowledge of the *naturales res* and the material of preaching.

⁶ Paris, BN lat. 16098, fol. 2.

For him, speaking of the properties of things is a good way to awaken simple-minded people (*ad evigilationem brutarum mentium*).⁷

Above all, the encyclopaedist claims to be a moralist, in a perspective whereby *scientia* is identified with *sapientia*, in the Christian sense of the term. To this attitude we have to add, even if the phenomenon—in its explicit expression—comes only later, a political point of view; in this case, the encyclopaedist declares his purpose to educate the prince, as does Brunetto Latini or the author of *Placides et Timéo*. Although we must be cautious, we can detect here the beginning of a more “positive” attitude, still implicit, by which the encyclopaedist proposes a cultural message, independent of any moralism. We find it in a word such as “subtilité”: the author of *Placides et Timéo*, for instance, informs his reader that he is going to become more “subtil.”

Let us take a closer look at this “subtilité.” First of all, we must be very careful about the so-called positivism of some allegations in the prologues: even if the moral aspect is not particularly emphasised, it very often appears in the discourse, as can be seen in the *Livre dou Tresor*, for instance. In fact, the assertion of *subtilitas*, which has to be correlated with the appearance of *veritas*, is essentially emblematic of an attitude which is perfectly clear to the encyclopaedist and which must be included in a didactic process. Latini says, for instance, that he is going to speak “selonc droit et selonc verité.” To tell the truth here is to reveal the nature of things, relying on authorities. The knowledge taught will “asoubtiller” the reader, as Christine de Pizan points out in the *Avision*.⁸ And the greatest subtlety, as Jean de Meun says, is it not that of Nature?⁹ To give subtlety, “asoubtiller,” is therefore to show nature and its *res* through the works of the authorities, with such power that it will be able to awaken those who are deaf to traditional preaching, as Thomas of Cantimpré says.

In the crucial context of the awakening of medieval writers to

⁷ Thomas Cantimpratensis, *Liber de natura rerum*, ed. H. Boese (Berlin/New York 1973) 5.

⁸ Christine notes that the worker “s’asoubtille” by consulting her works: *Lavision-Christine*, ed. M.L. Towner (Washington 1932) 164.

⁹ *Roman de la Rose*, v. 16119.

the consciousness of their own status, these references to truth and subtlety allow us to look at the encyclopaedist as an author who, like Guillaume de Machaut a century later, asserts his profession as a writer, in a social sense as well. In the late Middle Ages, indeed, this consciousness often appears in texts under the affirmation of “voir dit” or “soutilleté”;¹⁰ this is why a parallel can be established between encyclopaedic and poetic writing. Here it is necessary to come back to the central position of encyclopaedism at the heart of medieval culture: because of its special characteristics, the encyclopaedic text tries to answer the expectations of well-read people; and the later we look in the Middle Ages, the more important the cultural function—in its learned sense. We can find a proof of this tendency in the multiplication of so-called “learned insertions” in poetic works, with the growth of translations of scientific texts, etc. And, of course, the different references to scientific knowledge (in its middle-level dimension) that can be found in many poetic texts prove that the encyclopaedias were used. Of course, encyclopaedic writing may not have been essential to the affirmation of the poet’s status, but it is clear that it contributed to this very important phenomenon.

A BOOK IN ORDER

Ordo, per ordinem are also expressions that appear as constants in the prologues of encyclopaedias. Gossuin of Metz, for instance, says to his reader that he must read his work “tout premierement et tout ordoneement, si qu’il ne lise riens avant, devant ce qu’il entendra bien ce qui est devant”;¹¹ the author of the *Compendium philosophiae* likewise indicates that the books contained in his work must be read *per ordinem*.¹² Bartholomaeus Anglicus announces that he will speak *secundum distinctionem et ordinem*;¹³ we find the same attitude in Arnold of Saxony, who compiles *per ordinem*, or in Vincent of Beauvais, who, in chapter IV of his *Libellus*

¹⁰ J. Cerquiglini, «Un engin si soutil». Guillaume de Machaut et l’écriture au XIV^e siècle (Paris 1984) 211-21.

¹¹ *L’Image du monde de maître Gossouin*, ed. O.H. Prior (Lausanne 1913) 59.

¹² *Une nouvelle encyclopédie médiévale, le Compendium philosophiae*, ed. M. De Boüard (Paris 1936) 123.

¹³ Paris, BN lat. 16098, fol.2.

apologeticus (the general prologue of the *Speculum majus*), identifies encyclopaedic transposition with the action of putting in order, saying that his own intervention consists only of the task of ordering: *nam ex meo ingenio pauca, et quasi nulla addidi...meum autem sola partium ordinatio*.¹⁴

We can associate these declarations both with the moral view of nature and with the writer's conception of what is after all a real entity: the book, *liber*, the mention of which appears frequently in the prologues, considered as a source (*libri sanctorum et philosophorum*) and also as the vehicle of encyclopaedic writing (*hic liber, libellus, opusculum*, etc.). So, in itself, the mention of the book is significant. The writer shows clearly that he is not a simple *compiler*, giving *excerpta*, but that he is organising the information he gathers from his sources: he undertakes an encyclopaedic transposition, and in doing so he is prepared to use some difficult techniques, such as, for example, alphabetical order. For this reason we can measure the evolution of the encyclopaedic tradition by the writers' use of more and more indices, alphabetical tables, etc. Even if these techniques are not always operational, their idea is at the heart of the encyclopaedic process.

Here again, it seems to be possible to link this attitude to the general influences at work on writing at the end of Middle Ages. The systematic allusion to the book, *locus memoriae*, a space for the organisation of a kind of knowledge, a space managed more and more by the writers themselves, becomes a *locus communis* in the literature of this period: Machaut, Froissart, Deschamps, Christine de Pizan and many others insert different tables in their books, and take particular care with the illuminations: Christine de Pizan, for instance, in the *Epistre d'Othea*, often refers explicitly to the images decorating the manuscript. But the encyclopaedist Gossuin did the same more than a century earlier. There is no question, here again, of pretending that a network of direct influences could exist;

¹⁴ The quotations from Vincent de Beauvais are made from the edition of Douai 1624 (reprint Graz 1964), here p.4. For the question of order in the *Speculum majus*, see M. Paulmier-Foucart, "Ordre encyclopédique et organisation de la matière dans le *Speculum maius* de Vincent de Beauvais," in *L'encyclopédisme* (as in n.3) 201-26; S. Lusignan, *Préface au Speculum maius de Vincent de Beauvais: réfraction et diffraction*, Cahiers d'Études Médiévales 5 (Montréal/Paris 1979).

but, in the framework of an analysis of parallels, it is clear that the encyclopaedic movement played an important role. This is so particularly because the encyclopaedic transposition implies the transmission not only of knowledge, but also of methods and techniques of writing and organisation.

NATURE OF THE POST-ISIDORIAN ENCYCLOPAEDIA

We now arrive at the third and last point of our analysis: the last, but the most important. In the field of constants found in the prologues, we discover, in a quasi-systematic manner, what may appear to be a real definition of the encyclopaedia. Using a precise lexical field, the authors, not having the word "encyclopaedia" available, employ a set of equivalent terms and syntagmata, giving a definition of their writing, and, furthermore, of the genre: *summa brevis*, *compilare*, *compilatio*, *compendium*. So, in answer to the initial question of J. Le Goff, we can define the medieval encyclopaedia as a "brief compendium."

Brunetto Latini introduces his *Tresor*, saying that he is building a "*sonme briement*";¹⁵ the author of *Placides et Timéo* indicates that he wishes to "*conqueillir as plus briés mos que je puis, ainsi que en une somme, les mos et les pensees as philosophes et les diverses oppinions.*"¹⁶ Pierre Bersuire, after discussing the division of his work, gives a list of the treated matters in the following way: *aliquae etiam sunt in libro de proprietatibus materiae, quas valde succincte posui...qua propter de istis me breviter expedivi.*¹⁷ Thomas of Cantimpré begins his *Liber de natura rerum* by saying that he is going to gather knowledge *in uno volumine* which he will write *in parvo brevissime*;¹⁸ Arnold of Saxony uses the "books of philosophers" *sub eisdem verbis abbreviatis a me*.¹⁹ Examples could be multiplied.

A compendium is a gathering of scientific matters about the *res*

¹⁵ Brunetto Latini, *Li Livres dou Tresor*, ed. F. Carmody (Berkeley/Los Angeles 1948) 17.

¹⁶ *Placides et Timéo ou Li secrés as philosophes*, ed. C. Thomasset (Paris / Genève 1980) 1.

¹⁷ Petrus Berchorius, *Reductorium morale* (Köln 1731) 2a.

¹⁸ Thomas Cantimpratensis (as in n.6) 3.

¹⁹ E. Stange (ed.), *Die Encklopädie des Arnoldus Saxo* (Erfurt 1905) 6.

naturales; that is to say the *liber-speculum* of a nature which is itself a *speculum*. The compendium is brief, because it is composed exclusively of extracts, of quotations. Moreover, the declared brevity is linked to the *ordo* of the book, because to gather information derived from the knowledge of the saints and the philosophers implies an organisational mode, itself linked to the structure and hierarchy of nature, as Bartholomaeus Anglicus explicitly says. Thus, encyclopaedic brevity has nothing to do with the size of the works (which are generally voluminous).

The encyclopaedia lies, therefore, between the *accessus ad auctoritates* on the one hand and a broad description of Creation with the things that it contains on the other. The repeated references in the prologues and in the main part of the works to the authorities, of whom lists are given and from whom the information is explicitly taken—with further details about their works—is this not proof of a perfectly conscious operation, which defines the translation from high-level knowledge to encyclopaedic knowledge—in a word, the encyclopaedic transposition itself? Another sign is the address to the reader, where the writer explains exactly the purpose of the transposition: to serve the prince, to better explain the Bible, or more generally, to transmit a wide but limited knowledge to a large public composed of people who do not have enough time to learn from the authorities' works directly; this is what Gossuin of Metz says: "mais pour ce que tuit ne sont mie bon clerc ne maistre d'astronomie qui le peüssent esprouver, voudrons nous raconter aprés combien la terre est longue...."²⁰

It is therefore amazing and fascinating to see how the encyclopaedists of the thirteenth century, heirs of a long tradition beginning with Isidore of Seville and passing through the hesitations—and the richness too—of the twelfth century, succeeded in establishing the concept of the encyclopaedia; not knowing the antique *enkuklios paideia* and the concepts inherent in it, they achieved a clear consciousness of the existence of a genre which they themselves defined. They have in fact expressed the difference between a simple compilation and what we have called an encyclopaedic transposition, giving—in their words—a part of our criteria for the abstract model. The *summa brevis* is finally the result of an ordering of

²⁰ *L'Image du monde* (as in n.11) 177.

knowledge with the explicitly expressed purpose of educating and of edifying, in which the encyclopaedist of the thirteenth century joins his distant ancestor in the desire to educate the *vir bonus*, the latter now Christian.

MAPPAE MUNDI AND MEDIEVAL ENCYCLOPAEDIAS: IMAGE VERSUS TEXT*

MARGRIET HOOGVLIET

In this era of exact empirical cartography and satellite navigation, medieval maps of the world¹ such as the well-known Hereford map and the Ebstorf map (both dating from the thirteenth century) seem enigmatic and disconcerting. We cannot find our way through the mass of information from biblical, classical and legendary sources and we are troubled by the religious frame of the maps. Because of the richness of information displayed on these maps, historians of cartography refer to them as "visual encyclopaedias." Recent examples of this approach include the article "Visual Encyclopedia" by Peter Barber (1989)² and the latest book by Anna-Dorothee von den Brincken (1992),³ where she compares these large scale maps from the thirteenth century to encyclopaedic *summae* in a chapter entitled "Summenliteratur in Wort und Bild."

At first glance this interpretation seems to be a justifiable one,

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¹ For methodological reasons on which I cannot insist here, I will disregard the so-called T-in-O schemes, which are very often (and in my opinion wrongly) cited as the classic example of medieval cartography. I will discuss the use of classification systems of medieval maps of the world in my dissertation on "Texts and Images in Medieval and Renaissance Cartography."

² Peter Barber, "Visual Encyclopedia," *The Map Collector* 48 (1989) 2-8. The earliest reference to maps of the world as encyclopaedias is in Richard Uhden, "Zur Herkunft und Systematik der mittelalterlichen Weltkarten," *Geographische Zeitschrift* 37 (1931) 321-340, at 322.

³ *Fines Terrae. Die Enden der Erde und der vierte Kontinent auf mittelalterlichen Weltkarten* (Hannover 1992). Von den Brincken referred to maps like the Ebstorf and Hereford maps as "encyclopaedic maps" as early as her study from 1968: "Mappa Mundi und Chronographia. Studien zur imago mundi des abendländischen Mittelalters," *Deutsches Archiv für Erforschung des Mittelalters* 24 (1968) 118-186, at 121. However, Von den Brincken's main purpose in this article and in her other publications is to give an interpretation of medieval maps of the world as visual world chronicles. Although numerous historical events are represented on the maps, this interpretation leaves no room for an interpretation of other, non-historical elements mentioned by these maps.

but there is also a danger: "encyclopaedic" easily becomes a generic term disguising our modern discomfort when confronted with this product of medieval science which conflicts in every way with the empirical and objective foundations of modern science.⁴ An easy way out of the problem is to qualify medieval maps as "encyclopaedias." This terminology is at the same time an excuse for not considering the map at a deeper level. However, in my opinion medieval maps of the world deserve a more critical analysis of their encyclopaedic character. Consequently, in the first half of this article I will argue that the mass of information displayed on medieval maps like the Ebstorf map was not just a meaningless collection of interesting and amusing encyclopaedic knowledge. On the contrary, medieval maps of the world were the result of an intentional process of compilation. The compilatory character of the maps is analogous to the practice in medieval encyclopaedias, although a map is not only a textual but also a visual compilation. Moreover, the information on the Ebstorf map and several other maps is structured according to an ordering principle which is similar to certain medieval encyclopaedias. In the second half I will examine the corresponding sections on geography in medieval encyclopaedias and compare these texts to the visual maps of the world. I will finally conclude that medieval maps of the world cannot be considered as complete encyclopaedias, but that the strong relation to the encyclopaedic tradition can provide us with some clues for a reconstruction of the spiritual meaning of the medieval maps of the world.

The starting point will be the Ebstorf map,⁵ because it is the largest and most lavishly decorated specimen from the thirteenth century. Unfortunately the original was lost during World War II,

⁴ A recent example of the severe critique of medieval maps because of their "non-scientific" character is in Peter Whitfield, *The Image of the World: 20 Centuries of World Maps* (London 1994) 12.

⁵ This enormously large map measures 3.58 x 3.56 meters. Only a few other large maps of the world from the thirteenth century have been preserved, such as for example the Hereford map in Hereford cathedral, generally dated around 1260-1270. This map displays approximately the same geographical configurations as the Ebstorf map and presents roughly the same kind of information. I will mainly consider the Ebstorf map, but in most cases my observations can apply to the Hereford map as well.

but we still have a reasonably good impression of the map and its appearance from several modern copies.⁶ There are great controversies regarding the dating of the map and the place of its creation. Some historians adhere to the thesis that Gervase of Tilbury was the maker (or the spiritual father) of the map and they date it to the early thirteenth century.⁷ Others (myself included), who think that the nuns of Ebstorf themselves created this intellectually challenging masterpiece, tend to date the map towards the end of the thirteenth century, which was also the period of the economic, religious and devotional flowering of the convent in Ebstorf (the convent is itself depicted on the map).⁸

Unlike the majority of encyclopaedic texts, which did not necessarily have to be illustrated, the Ebstorf map is the result of a compilation process which includes textual material as well as visual material. A revealing example of this compilation process is the representation of the easternmost part of the world, the Terrestrial Paradise. At the top of the map, right below the head of Christ, a large text column describes the continent of Asia. The first part describes Paradise and is an almost verbatim quotation from the *Imago mundi* (1110-1139) by Honorius of Autun. Briefly, the text on the map tells us that the first region of the world is Paradise which is closed forever to man. Here grows the tree of life and a spring gives birth to the four rivers of the world. Then follows a

⁶ These are nineteenth century heliotypes: Ernst Sommerbrodt, *Die Ebstorfer Weltkarte, nebst Atlas von 25 Lichtdrucktafeln* (Hannover 1891); a colour facsimile made at the end of the nineteenth century: Konrad Miller, *Mappaemundi: Die ältesten Weltkarten. Vol. V: Die Ebstorferkarte. Mit dem Facsimile der Karte in den Farben des Originals* (Stuttgart 1896); and a reconstruction of the map made after the war. There is one copy in the convent of Ebstorf and one in the Museum für das Fürstentum Lüneburg, both in North Germany. Facsimile of the reconstruction: Schuler Editions, Stuttgart (2nd. ed. 1982). Quotations from the texts on the Ebstorf map in this paper are from Miller's edition.

⁷ See, for example, Armin Wolf, "Ikonologie der Ebstorfer Weltkarte und politische Situation des Jahres 1239. Zum Weltbild des Gervasius von Tilbury am welfischen Hofe," in: Hartmut Kugler and Eckhard Michael, eds., *Ein Weltbild vor Columbus. Die Ebstorfer Weltkarte. Interdisziplinäres colloquium 1988* (Lüneburg 1991) 54-116. Wolf's dating of 1239 is based exclusively on political arguments.

⁸ See, for example, Hartmut Kugler, "Die Ebstorfer Weltkarte. Ein europäisches Weltbild im deutschen Mittelalter," *Zeitschrift für deutschen Altertum und deutsche Literatur* 116:1 (1987) 1-29, at 8.

description of India, which is a compilation of excerpts copied from the *Collectanea rerum memorabilium* by the third-century Roman encyclopaedist Solinus. The quotation from the *Imago mundi* of Honorius of Autun is not the only text on the Ebstorf map describing Paradise: it is discussed a second time in two text columns in the upper left corner. Here the first part of the text copies the beginning of Isidore's description of the world (*Etymologiae* XIV.3.2-4). This text describes Paradise as always having a temperate climate, and abounding in all kinds of trees, among them the tree of life; human beings cannot enter Paradise because of the flames that surround it and because of the cherub that guards the entrance. The second part of the text has much in common with a paragraph (I.14) of Gervase of Tilbury's *Otia imperialia* (1209-1214) and describes the tree of the knowledge of good and evil. It becomes evident that the textual description of Paradise on the Ebstorf map is a compilation from many sources.

The iconographic representation of Paradise, however, does not follow the quoted texts at all. Paradise is depicted on the left side of the head of Christ, and is represented as a quadrangular space surrounded by mountains. Within the confines of Paradise the *pictor* has evoked a spring with four rivers, two trees, Adam, Eve and the snake with a woman's head. The walls of fire and the cherub from Isidore's description are not present in the depiction. In contrast to this text, the gate of Paradise is closed by huge doors. The quotations from Isidore and Honorius mention only the tree of life, but the presence of the tree of knowledge is accounted for by the text of Gervase. Of course Eve, Adam and the snake are directly associated with the notion of Paradise, but the descriptions do not mention them and neither do they mention the serpent with a woman's head. Only a kind of rubric above the image of Paradise informs us that the serpent persuaded Adam and Eve to eat from the tree of life (*Ubi primo parentes decepit serpens suadens de ligno vetito manducare*), but there is no trace of an explanation of the theological meaning of this event. This representation of Paradise makes clear that the makers of the Ebstorf map sought to provide the beholder not only with textual information, but they supplemented the texts with visual information (or vice versa: they explained the visual information by means of texts—there is no way to establish

with certainty which came first). A second striking phenomenon is that text and image do not necessarily have to coincide and can provide dissimilar information.

On the Ebstorf map there are numerous other examples of the difference between the information provided by texts and by images (I cannot multiply examples here). When images do not follow texts, it is often argued that this is a problem of availability of iconographic examples in illustrated texts or in model books. Divergences in information are commonly explained by pointing to an ignorant and illiterate *pictor* who did not bother to read the texts, or who could not even read them. One could object here that within the visual structure of the map text and image are equally important. A difference between text and image does not necessarily imply that the image is wrong.⁹ It is more revealing to examine the interaction between texts and images than to insist on the differences. For example, images can steer and change our perspective on the texts, and texts can explain images. The difference in text and image on the Ebstorf map might be better understood as a more intentional procedure. Seen in this way the beholder is invited to complete mentally the gap in the information.¹⁰ The Ebstorf map addresses a public of *literati* who have enough literary and visual knowledge to interrelate the texts and the images. In short, I think we might conclude, with the representation of Paradise on the Ebstorf map as an example chosen from many, that medieval maps of the world are the result of an intentional textual and visual compilation.

The process of compilation of maps like the Ebstorf map is a possible link with the medieval encyclopaedias (which are also large compilations), because they bring together several texts on the same subject from different sources. For example, Bartholomaeus Anglicus stated in the *praefatio* to *De proprietatibus rerum* that he did not give his own opinion on the matters described but he compiled texts from other books.¹¹ Another link with the encyclopa-

⁹ On this problem see also Johann K. Eberlein, *Miniatur und Arbeit. Das Medium Buchmalerei* (Frankfurt 1995) 92.

¹⁰ This procedure might be reminiscent of certain types of typological illustration.

¹¹ Bartholomaeus Anglicus, *De proprietatibus rerum* (Frankfurt 1601) 3: *In*

dias could be the ordering principle of the world maps.¹² This has been suggested by Uwe Ruberg, in his article published in 1991 discussing the animals on the Ebstorf map.¹³ Ruberg argues that the animals are positioned on the Ebstorf map according to the four elements and the six days of creation. These two themes, the elements and the *hexaemeron*, are also structural principles of the encyclopaedias. Ruberg states that most birds, being representatives of the element *aer*, are placed in the upper half of the map; the four-footed animals, representing *terra*, dominate the lower half. Furthermore, the descriptions of animals in the four corners outside the actual map follow the order of Creation: upper left *volatilia*, lower left *pisces*, upper right *quadrupedia*, lower right *serpentes*.

This is a totally different approach to the relation between medieval world maps and medieval encyclopaedias than the generalising interpretations I mentioned in my introduction. Nonetheless, Ruberg's conclusions are not really convincing. For example, to his observation that the birds dominate the upper half of the map, one can simply counter that the majority of the animals are located in the upper half of the map. Furthermore, the distribution of the four types of animals over the four corners of the map is not very clearly defined: the text on the *quadrupedes* (upper right) continues in the section reserved for *serpentes*. The same section speaks also of *sulphur*, *alumen*, and of islands. The *pisces* in the lower left section are completely hypothetical because of the damage in this part of the map. Finally, the section reserved for birds (quoted from Isi-

quibus de meo pauca vel quasi nulla apposui, sed omnia quae dicuntur de libris authenticis sanctorum et Philosophorum, excipiens sub breui hoc compendio, pariter compilaui, sicut per singulos titulos poterit legentium industria experiri. For more examples see Christel Meier, "Grundzüge der mittelalterlichen Enzyklopädistik. Zu Inhalten, Formen und Funktionen einer problematischen Gattung," in: L. Grenzmann et al., eds., *Literatur und Laienbildung im Spätmittelalter und in der Reformationszeit: Symposium Wolfenbüttel 1981* (Stuttgart 1984) 467-500, at 477-478.

¹² For ordering principles of medieval encyclopaedias see especially Meier, "Grundzüge" (as in n.11) 478-483, and Heinz Meyer, "Zum Verhältnis von Enzyklopädik und Allegorese im Mittelalter," *Frühmittelalterliche Studien* 24 (1990) 290-313, at 294-299.

¹³ "Die Tierwelt auf der Ebstorfes Weltkarte im Kontext mittelalterlicher Enzyklopädik," in: Kugler and Michael, eds., *Ein Weltbild vor Columbus* (as in n.7) 319-346.

dore's twelfth book of the *Etymologiae*) is mixed up with a text from Aethicus Ister (*De regione pene inhabitabili*). I would argue that there is a more distinct ordering principle detectable on the Ebstorf map. The texts outside the circle of the actual map must be read clockwise, beginning with the two last text columns in the upper left corner. If read in this order, these texts unfold the same vision of the universe as some encyclopaedias do, descending from the cosmos to the earth and emphasising the Creation.¹⁴

It is important to realise that the Ebstorf map presents itself as a written text: it is painted and written on parchment, and the map is framed by text columns such as we find in codices. The initials remind one of book decoration because of their decoration with pen flourishes. In fact, the map can be seen as an enormously enlarged manuscript illumination. This textual frame is not present on the Hereford map, but there are some later maps that do present the same characteristics. For example, the famous Catalan Atlas of 1375¹⁵ is introduced by a number of computus schemes (for example for the Golden Number, the phases of the moon and the tides in Brittany) and by a text in Catalan borrowed from the *Imago mundi* of Honorius of Autun.¹⁶ An even later circular world map with a textual frame is the map of Fra Mauro in 1459, now only known from a copy dated 1460 in the Biblioteca Marciana in Venice.¹⁷ Just

¹⁴ The texts on the Ebstorf map begin with the celestial spheres and *aether*, followed by Paradise, the three continents, the Creation and the other works of the *dies dominicus* and finally, on top of the last column, a short explanation that *mappa mundi* is *forma mundi*. Underneath these texts there starts a description of the created world, including animals, metals, islands, birds and northern regions. The structure of the *Imago mundi* by Honorius of Autun bears some resemblance to the texts on the Ebstorf map; other examples include the second half of Vincent of Beauvais' *Speculum naturale* and also the second half of Bartholomaeus Anglicus' *De proprietatibus rerum*.

¹⁵ Paris, Bibl. Nat., Ms. Espagnol 30. The map is now bound together as an atlas, but originally the parchment was mounted on separate panels which had to be laid out on a table. There is some discussion concerning the original order of the plates; I follow the present order of the atlas. See the facsimile edition by G. Grosjean, *Mamundi. Der katalanische Weltatlas vom Jahre 1375* (Dietikon / Zürich 1977).

¹⁶ This is the fourth plate of the present atlas. Cf. *Imago mundi* 1.1-3, 1.5, 1.7-35, 1.39.

¹⁷ Facsimile edition by T.G. Loporace and R. Almagià, *Il Mappamondo di Fra Mauro* (Venice 1966).

as in the Ebstorf map, the four corners of this map are reserved for text columns, this time in combination with circular visual schemes. Here again, if read clockwise, the texts seem to start with the cosmos and descend in sequence to the earth: the spheres of heaven, the moon and the tides, the five climatic zones, and, finally, Paradise.

Until now, I have not used the obvious term for a medieval map of the world: *mappa mundi*. I have done so on purpose, because *mappa mundi* is in fact an ambiguous expression. From the ninth century onwards, *mappa mundi* and its derivatives in the vernacular, like the Old French *mapemonde*, served not only to designate maps in our sense of the word, but were also used for texts describing the inhabited world, or *orbis tripartitus*. This phenomenon, the use of *mappa mundi* for both images and texts, was pointed out in 1925 by Richard Uhden.¹⁸ More recently, Patrick Gautier Dalché remarked that the relation between text and image in medieval cartography was much more complex than we expect: a textual description of the world could replace a visual map.¹⁹

The textual tradition of *descriptiones orbis* has its roots in texts from Classical Antiquity, where it was possibly also a literary genre.²⁰ In the Middle Ages, the textual *mappae mundi* were mainly composed from (to mention only a few names) writings of classical authors like Pliny and Solinus, and from works of Late Antiquity and the Early Middle Ages like the first part of Orosius' *Historiae adversus paganos* and the fourteenth book of Isidore of

¹⁸ See Richard Uhden, "Gervasius von Tilbury und die Ebstorferte Weltkarte," in: *Jahrbuch der Geographischen Gesellschaft zu Hannover* (1925) 199, n.73. This observation did not excite much interest until recently when the theme "text and image" in relation to medieval cartography became a serious research topic. See especially Uwe Ruberg, "Mappae Mundi des Mittelalters in Zusammenwirken von Text und Bild. Mit einem Beitrag von Antikem und Christlichem in *principium*- und *finis*-Thematik auf der Ebstorkarte," in: Christel Meier and Uwe Ruberg, eds., *Text und Bild. Aspekte des Zusammenwirkens zweier Künste in Mittelalter und früher Neuzeit* (Wiesbaden 1980) 553, and Patrick Gautier Dalché, *La «Descriptio mappe mundi» de Hugues de Saint-Victor. Texte inédit avec introduction et commentaire* (Paris 1988) 23, 87-95.

¹⁹ Gautier Dalché, *Descriptio* (as in n.18) 87.

²⁰ See F. Prontera, "Prima di Strabone: materiali per uno studio della geografia antica come genere letterario," in: idem, ed., *Strabone: contributi allo studio della personalità e dell'opera* (Perugia 1984) 187-256.

Seville's *Etymologiae*. The *Imago mundi* of Honorius of Autun seems to be the work that initiated for the twelfth and thirteenth centuries a series of *descriptiones orbis*. The newly composed textual *mappae mundi* were in some cases conceived as independent works, like the *Descriptio mappae mundi* attributed to Hugh of Saint Victor, but they were also incorporated into universal histories and the encyclopaedias of this period. Descriptions of the world were included in a wide range of encyclopaedias, such as the *Summarium Heinrici*, Herrade of Hohenbourg's *Hortus deliciarum*, the *Otia imperialia* of Gervase of Tilbury, the *Liber exceptionum* of Richard of Saint Victor, the *De proprietatibus rerum* of Bartholomaeus Anglicus, the *Speculum naturale* of Vincent of Beauvais, and in translations of these works into the vernacular. In most cases the *descriptio orbis* is placed in the section dedicated to the element *terra*. The *descriptio orbis* seems to be optional, however, for other encyclopaedias prefer to put a treatise on precious stones in this position.

The textual *mappae mundi* seem to describe a world which is in layout and content very similar to the representation of the world of the visual *mappae mundi*. The *descriptiones* also begin with Paradise, Asia, India, and so forth, and name approximately the same animals as do the maps. It is tempting to see the maps as illustrations for these texts. For example, it has been suggested that the Ebstorf map served as an illustration to Gervase of Tilbury's *Otia imperialia*. It is true that this author states that he delivered together with his text a [*picturam, quam*] *mappam mundi vulgus nominat*.²¹ Nevertheless, visual *mappae mundi* like the Ebstorf map were autonomous works of visual and textual compilation: they do not depend on one single text.²² In the case of the *mappae mundi*, we must let go of the idea of images as visualised texts.²³

²¹ *Otia imperialia, alias Solatium imperatoris*, Scriptores Rerum Brunsviciensium cura Godefri Gulielmi Leibniti, 2 vols. (Hannover 1707-1710) 956.

²² On the problem of attributions see also Gautier Dalché, *Descriptio* (as in n.18) 87.

²³ In all cases where a visual *mappa mundi* accompanies a *descriptio orbis*, the image has features which are not mentioned in the texts and vice versa. See for example the twelfth century map accompanying book XIV of the *Etymologiae* of Isidore of Seville in Munich (CLM 10058, fol. 154v): the map does not show Paradise. For some useful remarks on the relation between texts and images see: Bren-

Moreover, images can generate meaning by strictly visual means, just like spoken or written language does with words.²⁴ An important characteristic of medieval visual structures (and maps count among them) is their capability to generate meaning by the visual disposition of their constituent parts.²⁵ The makers of the Ebstorf map suggest by visual analogy a correspondence between Paradise and the trees of the sun and moon from the Alexander romances. This is something a text could never accomplish very easily. The visual disposition of the maps and their religious frame might provide us with some possibilities to reconstruct the *sensus spiritualis* of the visual *mappae mundi*. For example, the Ebstorf map is put in a religious perspective by the representation of the world held up by Christ who shows his wounds of the Passion, and by the numerous visual hints at the Apocalypse.²⁶ Besides, some areas of the map have a positive (near Paradise) or a negative (the north-east) connotation. This internal ordering of the map renders an interpretation *in bono* or *in malo* possible. I think the problem of text and image in the *mappae mundi* can be better explained if we consider it as a tradition of compilation, which can take the form of a textual and of a visual compilation. Each mode of expression influences the other: sometimes the images follow the textual *descriptiones orbis*, and conversely, the *descriptiones* sometimes assume the character of a cartographic *ecphrasis*; but text and image have their own independent *raison d'être*.

The obvious link between medieval maps of the world and the encyclopaedias could also give some possible clues for an inter-

dan Cassidy, "Introduction: Iconography, Texts, and Audiences," in: idem, ed., *Iconography at the Crossroads* (Princeton 1993) 3-15, especially 7; and Debra Hassig, *Medieval Bestiaries. Text, Image, Ideology* (Cambridge 1995) 17-28.

²⁴ On the semiology of visual elements see F. Saint-Martin, *Sémiologie du langage visuel* (Québec 1987). For images from the Middle Ages see F. Garnier, *Le langage de l'image au Moyen Âge. Signification et symbolique* (Paris 1982), and Patrice Sicard, *Diagrammes médiévaux et exégèse visuelle. Le "Libellus de formatione arche" de Hugues de Saint-Victor* (Paris/Turnhout 1993) 160-164.

²⁵ For a hermeneutical approach to complex visual structures from the Middle Ages see Anna Esmeijer, *Divina Quaternitas. A preliminary study in the method and application of visual exegesis* (Assen/Amsterdam 1978). For visual structures including maps see Wolfgang Kemp, "Medieval Pictorial Structures," in: Brendan Cassidy, ed., *Iconography* (as in n.23) 121-137.

²⁶ Uwe Ruberg, "Mappae Mundi" (as in n.18).

pretation of the maps, for both encyclopaedias and *mappae mundi* describe and portray the world created by the God of Genesis. Some authors of encyclopaedias give in their prologue hints for an exegetical interpretation of the created world: here one may think of Bartholomaeus Anglicus, who quotes in his introduction the well known text from the letter of the Apostle Paul to the Romans (1:20) that the *invisibilia Dei* are knowable through contemplation of the *visibilia* of Creation, or Vincent of Beauvais, who states in his *Libellus apologeticus* that the created world imitates its creator.²⁷ The problem here is that the *mappae mundi* only give the *sensus literalis*,²⁸ and they do not contain explicit textual references to a spiritual meaning. Even the moralised versions of the *De proprietatibus rerum* do not have glosses explaining the moral sense of the chapter on geography.²⁹ A possible guide to an interpretation could be the fact that the encyclopaedias copy the same texts from the same *auctoritates* as do the *mappae mundi*, and nearly all encyclopaedias give a *sensus moralis*. Alexander Neckam copies, among others, exactly the same text from Solinus on the *psittacus* as does the Ebstorf map, but Neckam adds to his compilation an *instructio moralis*. A *literatus* who is familiar with the moralisations in texts such as Neckam's *De natura rerum* will make the connection between the *psittacus* and its moral sense as indicated there.

As I have shown above, there are numerous correspondences between medieval maps of the world like the Ebstorf map and medieval encyclopaedias. Medieval maps can be considered as closely related to the encyclopaedic tradition for both are the result of a

²⁷ Bartholomaeus Anglicus, *De proprietatibus rerum* (as in n.11): *Non potest animus noster ad inuisibilia contemplationem ascendere, nisi per visibilia considerationem dirigatur: Inuisibilia enim Dei per ea quae facta sunt intellecta conspiciuntur, ut dicit Apostolus*. Vincent of Bauvais, *Liber apologeticus*: *Ipse namque mundus spaciositate locorum imitatur pro modulo suo creatoris immensitatem, uarietate specierum ipsius pulchritudinem, prolixitate temporum eius aeternitatem*. Serge Lusignan, ed., *Préface au Speculum maius de Vincent de Beauvais: réfraction et diffraction* (Paris/Montreal 1979) 121. For more examples and an outline of the spiritual sensus of encyclopaedias see Meier, "Grundzüge" (as in n.11) 472-476, 488-492; see also Meier, "Zum Verhältnis" (as in n.12).

²⁸ The *ibex* on the Ebstorf map is the only exception. The text on this animal with its spiritual meaning was probably copied from Pseudo-Hugh of Saint Victor, *De bestiis et aliis rebus*. See Ruberg, "Die Tierwelt" (as in n.13) 344-345.

²⁹ Meyer, "Zum Verhältnis" (as in n.12) 309.

compilation process. It might be possible to interpret the maps with a textual frame as a kind of encyclopaedia with a special focus on geography. At the same time the *mappae mundi* (*descriptiones* and *picturae*) seem to be a kind of résumé of encyclopaedic knowledge, because they contain a number of topics also described in other chapters of the encyclopaedias, such as for example animals, birds, the monstrous races, etc. This does not turn the *mappae mundi* into complete encyclopaedias, however. The maps are more exclusively geographical in character and they focus principally on the characteristics of the regions displayed. The encyclopaedias have a much broader outlook than the maps of the world, because they also include topics like angels, human beings and medicine, the seven liberal arts, etc. The medieval encyclopaedias and the *mappae mundi* have many points in common, but this does not imply that maps are visualised encyclopaedias.

PREACHERS' RESPONSES TO THIRTEENTH-CENTURY ENCYCLOPAEDISM*

PETER BINKLEY

The second chapter of the Gospel according to Luke begins: "And it came to pass, that in those days there went out a decree from Caesar Augustus, that the whole world should be enrolled." The word which the Douai version translates as "enrolled" is in the Latin Vulgate text *describeretur*, and implies the taking of a census. The King James version renders it as "taxed," and this is also a possible translation of the Latin. But it also has the more familiar sense of modern English "description," the verbal or pictorial depiction of an object. In this sense, *ut describeretur universus orbis* is an apt description of the encyclopaedic endeavour. This is the sense in which this text was interpreted by Richard of Haldingham, the creator of the Hereford *Mappa mundi* in the late thirteenth century, drawing on Aethicus Ister. In the lower left corner, outside the circle of the world, we find the text from Luke above a picture of Caesar Augustus presenting a letter with his seal to three men. The letter reads: "Go through the whole world, and report on all its continents to the senate."¹ In the lower right corner we see Policlitus, one of the three, on his way to measure the southern continent. The census has become a geographical survey.

The *descriptio orbis* that resulted from Augustus' edict had two characteristics that impressed themselves on medieval commentators: it was an act of dominion by the political ruler of virtually the entire world, and it happened at a time of world peace. In this paper I will explore the themes of dominion and peace, and their relationship to the great thirteenth-century encyclopaedias of Thomas of Cantimpré, Vincent of Beauvais, and Bartholomaeus Anglicus. My argument is that these works, which were ostensibly intended to

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¹ *Ite in orbem universum. et de omni eius continencia referte ad senatum. et ad istam confirmandam huic scripto sigillum meum apposui.* Richard of Haldingham, *Hereford Mappa mundi* (facsimile, Stuttgart 1989).

serve clerics in preaching and the exposition of scripture, failed to satisfy some of their intended audience because they fell into the characteristic frame of mind of the encyclopaedist by describing the natural world as one of peace and order, whereas the preacher was faced with the human world of sin and conflict.

The *Glossa ordinaria*, the standard biblical commentary of the later Middle Ages, had this say about Augustus' edict:

Augustus reigned in peace for twelve years about the time of Christ's birth, so that the prophecy might be fulfilled to the letter: "They will beat their swords into plowshares, their spears into pruninghooks: nation shall not lift up sword against nation, neither shall they learn war any more." Christ wished to be born in the most peaceful of times, for he sought and loved peace especially; for he always visits lovers of peace. He desired that the disciples whom he would send to preach could safely go wherever they wished, and be protected from the rage of threatening strife by the shadow of the fearful name of Rome. ... It was the most quiet and peaceful reign, for a single census (*descriptio*) included the whole world.²

Christ deliberately chose the reign of Augustus for his birth because of the advantages that Roman dominion of the known world would provide for the propagation of the Gospel among the Gentiles. This passage, which was adapted from Bede's commentary on Luke,³ is also found quoted by Vincent of Beauvais in his *Speculum historiale*, the historical section of his massive encyclopaedia, the *Speculum maius*. Here it follows a lengthy quotation from Orosius detailing Augustus' wars and triumphs, on which Vincent comments: "And so, when all had been pacified, the son of God chose to be born of the Virgin Mary."⁴ Roman military ascendancy brought peace to the world, preparing the way for the Incarnation; and this peaceful dominion expressed itself in the decree for a census.

That is the literal sense of this passage; the *Glossa* goes on to explain the spiritual meaning. Since it was a census and not a taxa-

² *Glossa ordinaria ad Lc. 2:1 s.v. Exiit edictum; Biblia latina cum glossa ordinaria* (Strassburg c.1480, rpt. Turnhout 1992) *ad loc.* (my translation).

³ Beda Venerabilis, *In Lucae evangelium expositio*, ed. D. Hurst, CCSL 120 (Turnhout 1960) 45-46, ll.1017-55.

⁴ Vincentius Bellovacensis, *Speculum quadruplex sive Speculum maius*, vol. 1, *Speculum historiale* (Douai 1624; reprint Graz 1964) 6.71 (p.197).

tion, in which the inhabitants had only to profess themselves subjects of the Roman Empire, the *descriptio* represents the coming of Christ to enrol the elect. "The old census of the synagogue was abolished, and the new census of the church was prepared."⁵ The political dominion of the Romans therefore represents the spiritual dominion of Christ.

Luke and the glossators were not unique in admiring the opportunities for knowing the world that the Roman Empire brought. In a recent essay translated under the title "The Inventory of the World: Form of Nature and Encyclopedic Project in the Work of Pliny the Elder",⁶ Gian Biagio Conte has pointed to a pervasive characteristic of Pliny's work: his admiration for the peace which the Roman Empire had brought to the known world. Peace is a precondition for the encyclopaedist, for it makes the whole world accessible to be inventoried and classified. The freedom of access to the world which Christ wanted for the Apostles was also available to the Roman scientist, who could find products from all over the world in the markets of Rome and hear reports from every province. Essentially, Pliny felt that the age of discovery had come to an end with Rome's triumph, and the age of inventory of the now fully accessible world had begun. As a monument to Rome's ascendancy, we might compare Pliny to the great eleventh edition of the *Encyclopaedia Britannica*, as much an expression of the Victorian *pax Britannica* as Pliny's work was of the *pax Romana*.

Pliny in turn based his work on an earlier act of imperial encyclopaedism: Alexander the Great's supposed commission for the compilation of fifty volumes of natural lore.⁷ Alexander (at least as he appears in medieval legends) is the model for the Emperor/naturalist. Not only did he master the world by conquest, imposing peace and bringing the world into one political unit, one peace; he also explored the mysteries of nature, untiringly curious, even venturing into the air and the depths of the sea, and to the

⁵ *Glossa ordinaria* ad Lc. 2:1 s.v. *Exiit edictum* (as in n.2).

⁶ In: Glenn W. Most, tr., *Genres and Readers: Lucretius, Love Elegy, Pliny's Encyclopaedia* (Baltimore/London, 1994) 67-104.

⁷ Pliny the Elder, *Historia naturalis*, 8.17.44; also mentioned by Thomas of Cantimpré, *Liber de natura rerum*, ed. H. Boese (Berlin/New York 1973) 4 ll.50-51.

gates of Eden.

Medieval kings were also happy to associate themselves with encyclopaedic works. Louis IX of France, for example, sponsored Vincent of Beauvais. In his letter to Louis in response to the king's request for a copy of the unfinished *Speculum maius*, Vincent praised Louis' love of learning, which, significantly, he says the king is free to indulge because he has brought peace after the wars which had disrupted various parts of his kingdom. In his salutation he contrives to universalise Louis' authority by alluding to his leadership of the crusading movement, for which the whole church and indeed all mortals owe him reverence and honour: a sort of world dominion. He places Louis at the culmination of a line of learned French kings going back to Charlemagne, with classical models in Julius Caesar and Augustus, and scriptural models in David and Solomon.⁸

Examples of sovereigns' patronage of encyclopaedic works could be multiplied: Floris V and Jacob van Maerlant's translation of Thomas of Cantimpré into Dutch verse, or the numerous astronomical and historical works of Alfonso the Wise of Castile, or various world chronicles or *specula principum* that often aspire to an encyclopaedic comprehensiveness. The association is particularly clear in the French translation of Bartholomaeus Anglicus' *De proprietatibus rerum* commissioned by Charles V of France, which had a frontispiece depicting the king handing the Latin text to his translator Corbechon, accompanied by three scenes of God creating the various creatures described in the book.⁹ By commissioning a book containing the properties of all created things, the king is showing himself to be an image of God, the creator of the world, and claiming (in a symbolic sense at least) a God-like dominion.

Dominion and peace, then, are in the medieval view essential conditions for encyclopaedic knowledge of the world; and the compilation and possession of encyclopaedic knowledge is a visible

⁸ Gregory Guzman, "Vincent of Beauvais' *Epistola actoris ad regem Ludovicum*: A Critical Analysis and a Critical Edition", in: Monique Paulmier-Foucart et al., eds., *Vincent de Beauvais: intentions et réceptions d'une oeuvre encyclopédique au moyen âge* (Paris 1990) 57-85, text at 76-79, ll.1-8, 19-60.

⁹ Donal Byrne, "Rex imago Dei: Charles V of France and the *Livre des propriétés des choses*," *Journal of Medieval History* 7 (1981) 91-113. I am grateful to dr. Heinz Meyer for providing me with this reference.

token of sovereignty. These themes have to do with man's capacity to know the world, which depends on peace. I would like to add one further theme, having to do with God's creation of the knowable world: that of order.

An essential characteristic of peace is order and rationality, which in intellectual affairs allows for clarity and insight. In this regard, it is worth noting that the moment of world peace at the time of the Nativity, when the world was under one government with the power to command a universal survey, mirrors an earlier moment of peace, dominion, and clarity: the seventh day, when God rested after the creation of the world. On the sixth day he had created man and given him dominion over the earth and all the creatures upon it, and man's dominion was expressed in Adam's naming of the beasts.¹⁰ On the seventh day, creation was complete, and sin had not yet entered the world. The peace and order ordained by God was undisturbed. As in Augustus' reign the world was at peace, and Adam could know and assign a name to every animal in the world.

The clarity with which the natural world could be known at that moment is reflected in the medieval genre of hexaemeral treatises, dealing with creatures in the order of the six days of Creation. The Latin West inherited a rich tradition of hexaemeral commentaries from the patristic period, notably those of Basil and Ambrose, and added to them. Rabanus Maurus in the ninth century established hexaemeral order as the standard structure for encyclopaedic works, when he reorganised Isidore of Seville's *Etymologiae* according to a grand hexaemeral scheme.¹¹ In doing so he put spiritual concerns at the centre of the encyclopaedic endeavour, where before the human world and the natural world as it pertained to man's life on earth were the focus. A hexaemeral survey of the natural world inevitably stresses the creator's hand and image as they appear in his creatures.

¹⁰ Cf. Vincent of Beauvais, *Speculum historiale* (as in n.4) 1.30 (p.12).

¹¹ Christel Meier, "Vom *homo coelestis* zum *homo faber*. Die Reorganisation der mittelalterlichen Enzyklopädie für neue Gebrauchsfunktionen bei Vinzenz von Beauvais und Brunetto Latini," in: *Pragmatische Schriftlichkeit im Mittelalter. Erscheinungsformen und Entwicklungsstufen*, ed. Hagen Keller, Klaus Grubmüller und Nikolaus Staubach (München 1992) 158-160.

The themes of peace, dominion and order therefore form a closely related cluster of ideas in the realm of medieval Christian encyclopaedism. But what is the purpose of the compilation of encyclopaedias in a medieval Christian context: specifically, in the context of the thirteenth-century mendicant orders? The encyclopaedists present two justifications: to help to understand spiritual truths, and to help to express those truths.

The first is the familiar Pauline and Augustinian idea that the soul can be led upwards to an understanding of spiritual things by consideration of the created world. The created world bears the fingerprint of its creator, and therefore constitutes evidence that can convey knowledge about God to the human mind. It is an expression of the Creator's love for the human soul, and is therefore not to be condemned. Knowledge of the physical world cannot satisfy, but it is a worthy and necessary first step in drawing the soul upwards to knowledge of God.¹² Vincent of Beauvais ties this idea closely to the encyclopaedic endeavour in his prologue, when he justifies the inclusion of natural lore:

Often my mind, raising itself a little from the dregs of worldly thoughts and affections, and climbing as well as it can to the look-out posts of reason, surveys at a single go as if from a high place the greatness of the whole world, containing infinite places filled with various types of creatures, and it also sees the age of the whole world, from the beginning until now, in one look, and there it comprehends all times, containing the sequence of generations and the changes of things as if in a line, and then by the intuition of faith it rises somehow to think of the greatness, beauty and perpetuity of the creator himself.¹³

What Vincent's mind could survey at a glance (*uno ictu, uno aspectu*) would require years of patient study of his encyclopaedia for the student to comprehend.

¹² This view of the natural world also emphasises its goodness (since it is God's handiwork), which was a point the early Dominicans pressed against the dualist Cathars. See Roger French and Andrew Cunningham, *Before Science: The Invention of the Friars' Natural Philosophy* (Aldershot 1996) 127-145 (a reference I owe to Juris Lidaka); I intend to develop this argument in a later publication.

¹³ Vincent of Beauvais, "Libellus apologeticus," ed. Serge Lusignan, in: *Préface au Speculum maius de Vincent de Beauvais: réfraction et diffraction* (Paris/Montreal 1979) 121 (my translation).

A subsidiary application of the idea that the study of nature leads to the understanding of God is the use of encyclopaedic knowledge to interpret passages of Scripture. Bartholomaeus Anglicus states the purpose of his encyclopaedia at the beginning of his prologue:

I myself, and perhaps others, who do not know the natures and properties of things (scattered as they are among the books of the saints and of the philosophers), will find this book useful in understanding the riddles of the Scriptures, which are expressed and veiled by the Holy Spirit under symbols and figures of the characteristics both of natural and of artificial things.¹⁴

In this sense the mendicant encyclopaedias were the fulfilment of St. Augustine's program, expressed in his *On Christian Doctrine*, for the deployment of all knowledge towards the goal of developing as fully as possible our understanding of the inexhaustible meaning of Scripture.

But the mendicant encyclopaedists went far beyond what was necessary to provide aids to interpretation of scripture. Their use of encyclopaedic knowledge could be wildly exuberant. A remarkable application of encyclopaedic lore to moral purposes is seen in the *Bonum universale de apibus* composed by the Dominican encyclopaedist Thomas of Cantimpré in the mid-thirteenth century.¹⁵ As described in Thomas' dedicatory letter, it is a work driven by very different concerns. On the one hand he was asked by his confrères for a book about the government of the Dominican order; on the other, he responded to a call from the master general for the recording of miracles performed by the brothers. He fulfilled this task by taking the chapter on bees from his own encyclopaedia, *De rerum naturis*, and adding a line-by-line commentary providing a moral application to human society in Thomas' own words, and then various exempla concerning the Dominicans. Within this framework, Thomas is satisfied that he has said all that need be said about human society. The chapter on bees—a fragment of the natural world—becomes a microcosm that corresponds precisely to

¹⁴ Bartholomaeus Anglicus, *De rerum proprietatibus* (Frankfurt 1601; reprint Frankfurt 1964) 1 (my translation).

¹⁵ Thomas of Cantimpré, *Bonum universale de apibus*, ed. G. Colvenerius (Douais 1627).

the human microcosm. In its moral application, the encyclopaedia is like a hologram: when it is broken each fragment contains an image of the whole.

A second application of encyclopaedic knowledge is the expression of spiritual meaning in sermons. Most of the mendicant encyclopaedists mention the utility of their works to preachers.¹⁶ This is the converse of the first application: the preacher starts with a spiritual truth, and needs to find images and allegories in nature to express it. The medieval pulpit required a steady supply of new material. Alongside the encyclopaedias, there were collections of preachable material, also compiled by mendicants. They differ from the encyclopaedias in that their moral and doctrinal concerns are put in the primary position, where the encyclopaedists begin with the natural world, considered as God's work, and generally leave the moralisation to the preacher.

These two genres, produced at the same time and in the same intellectual milieu, serve the same audience for the same purpose but in two very different ways. The manuals differ, of course, in their choice of material: they do not by any means confine themselves to encyclopaedic knowledge. They provide authoritative texts, narrative exempla, similitudes, arguments and counter-arguments. But the essential difference between the two genres is in their arrangement. In their treatment of the natural world, the encyclopaedias follow a scientific arrangement, replicating the order of the natural world: either the Aristotelian structure of substances and elements, or the hexaemeral sequence. The preaching manuals follow a variety of schemes, in which moral theology (e.g. vices and virtues) and ease of consultation (e.g. alphabetical order) predominate over natural science. This difference reflects a fundamental difference in the world view of encyclopaedists and moralists, which I would like to explore.

I have shown, I hope, how the encyclopaedist views the world as peaceful and orderly. The compiler of a preaching manual, on the other hand, does not see a peaceful world, but a world at war with the devil and with itself, in sin. The preacher is engaged in that warfare, and cannot afford the luxury of the encyclopaedic view-

¹⁶ E.g. Thomas of Cantimpré, *Liber de natura rerum* (as in n.7) 35 ll.63 ff.; Vincent of Beauvais, "Libellus apologeticus" (as in n.13) 118.

point. The preaching handbook is intended to provide access to preachable material on all moral subjects, quickly and with a minimum of distraction.

This view of the world full of conflict was best expressed by the jurists (a breed closely allied to moral preachers), in terms that nicely complement those of the encyclopaedists. Justinian's constitution *Tanta*, which introduces the *Codex*, laments the endlessly inventive activity of nature in producing new conflicts and lawsuits. He says:

Divine things are perfect, but the condition of human law constantly tends toward the infinite, and there is nothing in it that can last forever, for nature hastens to produce many new forms; so we do not doubt that some cases will emerge later that have not yet been entrapped in the snares of the laws.¹⁷

This justifies the Emperor's legislative activity. Likewise, in the late twelfth and early thirteenth centuries, the canon lawyers vindicated the Pope's right to legislate *suo motu*, and not just in reaction to appeals or in councils.¹⁸ In so doing they employed the same imagery as Justinian. Pope Honorius III, for example, in his prologue to the *Compilatio V*, begins thus:

New questions of newly-emerging causes demand to be settled by new decisions, so that when suitable remedies have been applied to the various diseases, everyone may receive his due in health. Therefore, although certain predecessors of ours have shrewdly provided a precedent for future business by the things which they decided for their own times, the prodigal nature of things daily gives birth to new causes according to the varieties of multitudinous cases.¹⁹

The prodigality of nature—and not just *natura*, but *rerum natura*, the classic term for encyclopaedic knowledge—justifies the Pope in imitating the emperors' prerogative of legislating actively and not just in response to complaints addressed to him by litigants.

¹⁷ Justinian, *Codex* 1.17.2.18.

¹⁸ I base my argument on Giulio Silano, "Of Sleep and Sleeplessness: The Papacy and Law, 1150-1300," in: Christopher Ryan, ed., *The Religious Roles of the Papacy: Ideals and Realities 1150-1300*, Papers in Medieval Studies 8 (Toronto 1989) 343-61.

¹⁹ Emil Friedberg, ed., *Quinque compilationes antiquae nec non collectio canonum Lipsiensis* (Leipzig 1882) 151; Silano, "On Sleep and Sleeplessness" (as in n.20) 360-61.

Imperial peace appears in a different light for the lawyers than for the encyclopaedists. Justinian, in his prologue to the *Institutes*, put laws on a par with arms as responsibilities of the Emperor in protecting society; he rehearses his military successes, and presents his legislative activity as a natural progression in the peace he had established by arms.²⁰ This is a different emphasis from the peaceful emperor-encyclopaedist: for the legislator, laws are a continuation of war by other means, and true peace is impossible in this world. Nature is not stable and ordered, but rather an unruly source of innovation, disorder, and decay. It is the responsibility of moral authority to fight against it, in an unending battle.

The moral preacher sees the world in these terms: moral instruction is precisely parallel to law. The Dominican John Bromyard pressed this point in the prologue to his *Tractatus iuris*, an alphabetical preaching aid which he based entirely on canon and civil law. He justifies this choice of material:

No one can justly criticise the following treatise for quoting canon law in testimony of the truth, for the teaching of canon law is given for this reason: so that through it both clergy and laity may be ordered: prelates in commanding, teachers in teaching, preachers in exhorting, and laymen in obeying. ... I have tried to make bread for the children from the laws of the pagans, to inspire them to the Christian life. The laws are useful for this, since they are founded on reason, and the rational soul is more easily inclined to them than to strange natures of things or of animals (*extraneis rerum vel animalium naturis*) or to poets' fables, which the soul admires but does not believe, when it should believe and obey. It is wrong to quote or refer to them [sc. the natures of things] in sermons; it is enough that the example and reason of the law be expressed and turned against sins.²¹

²⁰ Justinian, *Instituta*, prol.

²¹ John Bromyard, *Tractatus iuris civilis et canonici* (also known as the *Opus trivium*), prol.; London, British Library, MS Royal 10.C.x., fol.9ra: *Quod in sequenti tractatu iura canonica adducuntur in testimonium veritatis nullus iuste poterit calumpniari, quia doctrina iuris canonici ad hec tradita esse dinoscitur, ut per ipsam tam clerici quam laici regulentur: prelati videlicet in precipiendo, doctores in docendo, predicatorum in exhortando et laici in obediendo ... Conatus sum de legibus paganorum confitere panem filiorum ad informacionem vite xristianorum, cum pro tanto sunt viles quia sunt super racionem fundate, quibus anima rationalis facilius inclinatur quam extraneis rerum vel animalium naturis, seu poetarum fabulis, quibus potius non credit admirando quam credit obediendo. Nec*

These opposing points of view point to very different attitudes toward the natural world. The encyclopaedist is grounded in the real world of God's creation (i.e. has a commitment to scientific truth), while being perhaps overwhelmed by the plenitude of that creation. For him the problem is the disorder of books, not of nature. Vincent's primary justification for his encyclopaedia is the difficulty of finding information, and the prevalence of bad texts;²² the encyclopaedist Thomas of Cantimpré likewise takes pains to account for apparent falsehoods in his sources:

The reader of this work should bear in mind that if he should find the natures and habits of animals or the effects of herbs to be different in the West than is contained in the account of the philosophers, almost all of whom wrote in Eastern regions, he should not immediately begin to think that what is written is false, but rather he should prudently recall that the Eastern part of the world with its creatures is different from the West or North or South, for the East is opposite to the West by the disposition of nature, and the South to the North. Otherwise the machine of the world could not work.²³

Contradictory textual authorities can therefore be accommodated in the diversity of the created world; and irrationality in nature is only apparent; this in contrast to Bromyard's view that rationality is a feature of law, but not of nature.

For the moralist, the natural world is a source of material for preaching, but a dangerous one: the audience may be distracted by the novelty of the natural lore, especially if it derives from the *mirabilia* tradition, instead of being edified by the moral message. Bromyard makes this point in a somewhat more moderate tone in the *Summa predicantium*, which he wrote after the *Tractatus iuris* quoted above. Here he says:

I use examples drawn from the customs of men more often than those about animals or other unfamiliar things, since the former are better known and more persuasive to men, to whom we speak and preach.

oportet illas in predicationibus cotare vel allegare. Sufficit enim quod exemplum et ratio legis exprimantur et contra peccata conuertantur.

²² Vincent of Beauvais, "Libellus apologeticus" (as in n.13) 115.

²³ Thomas of Cantimpré, *Liber de natura rerum* (as in n.7) 4-5, ll.75-81 (my translation); cf. Vincent of Beauvais, "Libellus apologeticus" (as in n.13) 123-24..

Knowledge of unknown things should be gained through known things.²⁴

And indeed Bromyard's use of animals generally avoids encyclopaedic lore: they appear either in fables, in which the animal characters are essentially human actors in animal masks, or in familiar similitudes that appeal to observation more than to the encyclopaedic tradition.

The encyclopaedist, on the other hand, takes pleasure in the plenitude of creation, even in preaching. Thomas stresses the utility of his work for preachers of deep understanding, quoting Aristotle:

Whether a thing is noble like the heavens, or ignoble like an animal creature, it will be a cause of great delight to those who can understand it. For this reason we should consider the forms of creatures and delight in the maker who made them, for the craftsmanship of the worker is shown in the work. And for this reason, he said, let us pay attention to the natures even of base animals, and it will not be unpleasant for us, for in all natural things there is something wonderful; and a natural thing is noble, for nothing in nature was created inadvertently or casually, but for some completeness.²⁵

This idea of the plenitude of the world is a basic constituent of the encyclopaedist's mentality, I would argue, but only an incidental one for the preacher.

The preacher, of course, has no need to try to comprehend the fullness of the created world. The comprehensiveness of the preaching manual lies on the other side of the allegorical equation: the moral applications of preachable material. Étienne de Bourbon's collection of exempla, for example, was organised according to the seven gifts of the Holy Spirit, which allowed him to cover all of human psychology and morality.²⁶ Bromyard's alphabetical sequence includes the virtues and vices and moral issues such as wealth, commerce, etc.: an arrangement developed for preaching

²⁴ John Bromyard, *Summa predicancium*, prol. §3; London, British Library, MS Royal 7.E.iv, fol.10rb-va: *Sepius tamen exempla ponuntur accepta de moribus hominum quam de animalibus vel aliis rebus ignotis, utpote hominibus quibus loquendum et predicandum est magis nota et credibilioris persuasionis. Per notiora enim debet ignotorum sciencia adquiri.*

²⁵ Thomas of Cantimpré, *Liber* (as in n.7) 4, ll.66-73.

²⁶ A. Lecoy de la Marche, ed., *Anecdotes historiques, légendes et apologues tirés du recueil inédit d'Étienne de Bourbon, dominicain du XIIIe siècle* (Paris 1877).

aids in the thirteenth century, and precisely the arrangement rejected by Vincent of Beauvais.²⁷ For the preacher, encyclopaedic knowledge is not knowledge but material, suitable for moral application in a number of contexts, open to many and even contradictory allegories: the lion can be the Devil seeking whom he would devour one Sunday, and the symbol of the resurrection the next. This sort of moral application is necessarily open-ended, and no preaching manual can be said to comprehend this sort of material encyclopaedically any more than a book of quotations can include all quotations. What the preaching manuals do attempt to cover comprehensively is sin and human failing, against which this material is to be applied by the preacher. In this sense they are encyclopaedias not of the macrocosm but of the microcosm, specifically of man's moral world.

When encyclopaedism was in the hands of the mendicants, there was a continuum between the scientific approach of Vincent of Beauvais and the moralist Bromyard. Giovanni di San Gimignano,²⁸ for example, wrote a collection of similitudes of natural and human things, with which he sought to complement the collections of narrative exempla on the one hand and textual authorities on the other: essentially, he is presenting encyclopaedic knowledge in a form that requires the least interpretative work of the preacher. He structures it, however, like a scientific encyclopaedia: his primary division is into *sensibilia*, *imaginabilia*, and *rationabilia*, reminding us of Bartholomaeus Anglicus. Within each book he uses alphabetical order of moral topics, and he provides full moralisations. Thus, one may look up "gluttony" in any or all of the ten books, depending on whether one's goal is moralisations from the world of physics, metals and stones, plants, fish and birds,

²⁷ Vincent of Beauvais, "Libellus apologeticus" (as in n.13) c.2 (116-117): ... *cernens quod si diuersorum sententias ad eandem materiam pertinentes, ut fieri solet, per singulos titulos annotarem, uerbi gratia sub uno titulo sententias et exempla de caritate, sub alio de castitate, et sic de ceteris uirtutibus et uiciis sigillatim tractando procederem, totam utique rerum naturam, quam nihilominus describere diligenter disposui, necessario ab hoc opere excluderem necnon et ordinem hystorie totius non parum utilitatis uel pulchritudinis habentem omnino confunderem uel euerterem.*

²⁸ Giovanni di San Gimignano, *Summa de exemplis et rerum similitudinibus* (Deventer 1477).

and so on. He recommends the use of wonders of nature or human invention to make an impression on a simple audience. He therefore stands neatly between Bromyard and Vincent. I believe that San Gimignano and Bromyard represent different responses to what they saw as the excesses of their encyclopaedic confrères. In its most extreme form, in Bromyard, the result is a sort of anti-encyclopaedia. If the *Summa predicantium* and similar preaching aids are not encyclopaedias, it is because Bromyard and his colleagues thought the encyclopaedists had got the world upside-down, and were trying to put it right.

ENCYCLOPAEDISM IN RENAISSANCE BOTANY: FROM *HISTORIA TO PINAX**

BRIAN W. OGILVIE

Between 1550 and 1620, botanical encyclopaedias underwent substantial changes in content and organisation. This transformation reflects changes in the purpose and practices of natural history in the late sixteenth century. Through 1550, practically every botanical compendium had a claim to be encyclopaedic. Their authors purported to give a concise, comprehensive account of the plant kingdom—or at least, of those of its provinces useful in medicine. Half a century later, encyclopaedism in this sense was no longer a reality but an ideal. Dozens of specialist publications containing hundreds of new plant descriptions had left earlier encyclopaedias gaping incomplete, and this flood of information proved initially unmanageable for those who wanted to continue writing encyclopaedic works in the traditional fashion. The quest for comprehensive works in botany continued, but it required a new form: the *Pinax*, or table of plants.

In this essay, I will examine a handful of texts which reflect this reorientation in late Renaissance botany, focusing on their form and function in the context that produced them. As a concrete example of the concerns of Renaissance botany, I will follow the description of one particular plant—the *primula*—through each of these texts. Its changing fortune reflects the broader changes in how, and why, plants were studied in the Renaissance.

The Renaissance herbal, or history of plants, though partially patterned on medieval predecessors, owed central features to its dual origins in philology and academic medicine. Early Renaissance botanists—the generation that came to maturity in the 1530s—were concerned primarily with identifying and describing the traditional

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Greco-Roman pharmaceutical plants.¹ This interest emerged from the confluence of two intellectual currents: the revival of interest in ancient botanical texts, part of the humanist recovery of Greek learning, and new demands on medical students to study plants themselves, not merely their names and medicinal effects.²

Rembert Dodoens' *Histoire des plantes* (1557) is a typical example of the genre.³ As its title page advertises, the work is a "History of plants, in which is contained the complete description of herbs: namely, their species, form, names, temperament, virtues, and effects, not only of those which grow in this country, but also of foreign ones which are used in medicine." The title, a sixteenth-century version of the dust-jacket blurb, is surrounded by an emblematic engraving depicting Apollo and Aesculapius, the tutelary deities of medicine, along with Gentius, Mithridates, Artemisia, and Lysimachus, ancient rulers who, *teste Plinio*, had discovered the healing properties of the plants bearing their names.⁴

A reader who judged this book by its cover would not have been disappointed. Dodoens addressed the work to "candidates in medicine," urging them to pursue the study of plants as a vital part of the healing art. The preface is followed by a table of diseases and injuries, from "Abscesses" to "Ulcers of the eye," with references to the plants useful for treating them. The bulk of the work is taken up by descriptions of each plant. Of the *primula veris*, or *petit Bouillon*, Dodoens wrote that it exists in two sorts, the first of which he divided further into two kinds.⁵ He described the first in some detail, indicating the form, colour, odour, and taste of its leaves, stems, and flowers. The second and third were described contrastively, noting only those features in which they differed from the first. Dodoens remarked that these plants grow in low woods and meadows, and two of them are planted in gardens. They flower in April, sometimes in March. After listing their names in five lan-

¹ P. Dilg, "Studia humanitatis et res herbaria: Euricus Cordus als Humanist und Botaniker," *Reze* 1 (1971) 71-85.

² K.M. Reeds, "Renaissance Humanism and Botany," *Annals of Science* 33 (1976) 519-42.

³ R. Dodoens, *Histoire des plantes*, trans. C. Clusius (Antwerp 1557), a revised translation of Dodoens' *Cruydt-boek* (Antwerp 1554).

⁴ Pliny the Elder, *Historia naturalis* 25.7.22, 25.26.62, 25.34.71-36.73.

⁵ Dodoens, *Histoire des plantes* (as in n.3) 93-94.

guages, Dodoens turned to their medical properties. They are dry in the third degree, without any manifest heat. They are commonly used as food, but they have no important medical usage. This verbal description was accompanied by woodcut illustrations of each type of *petit Bouillon*.

The entry on the *primula* underscores Dodoens' philological interests. He carefully distinguished the plant's Latin name among learned men, *verbasculum*, from the Latin name used by contemporary apothecaries. The two Latin indexes at the end of the book, one devoted to terms used by "the ancients and learned men," the other to those employed in pharmacies and by Arabs and contemporary herbalists, reflect the work of the past two generations of scholars to identify the plants described by the ancients, distinguishing in the process those plants from others which were "incorrectly" named or which folk usage had given other names.⁶

Dodoens also included several plants, like the *primula* or the wild fava bean, which he believed had no medical use.⁷ Such plants were increasingly of interest to naturalists—and gardeners—in the mid-sixteenth century. Rather than follow the alphabetical order commonly used in medieval herbals—which destroyed any sense of natural relations among plants, according to Dodoens' contemporary Hieronymus Bock⁸—Dodoens arranged his work according to the Theophrastean distinction between herbs, shrubs, and trees; and within these groups, by tacit notions of similarity. This scheme made it harder to find information about a particular plant, but the more "natural" order made relations between plants easier to recognise.

On the whole, however, Dodoens' history sits comfortably in the lineage running from medieval herbals to the modern home medical manual. Despite the changes in botany in the next fifty years, such compendia continued to be published into the eighteenth century. Often they were reeditions of earlier texts, as with Hieronymus Bock's and Adam Lonizer's herbals; the latter saw its last edition in

⁶ E. g. N. Leonicens, *De Plinii et aliorum medicorum erroribus* (Basel 1529, first ed. 1492); E. Cordus, *Botanologicon* (Cologne 1534).

⁷ Dodoens, *Histoire des plantes* (as in n.3) 94, 323.

⁸ H. Tragus [Bock], *De stirpium...commentariorum libri tres* (Strasbourg 1552) sig. [d9]r.

1783.⁹ The development of botany into an independent science in the sixteenth and seventeenth centuries did not eliminate the need for pharmaceutical reference works. The emergence of new forms of encyclopaedic works represented a process of differentiation within the study of plants, not a wholesale transformation of its purpose and practice.

The career of Carolus Clusius, Dodoens' translator, shows how, by the 1570s, botany and medicine could be almost completely separated. Though trained as a physician at Montpellier, Clusius apparently never practised; he was supported in his botanical activities by court appointments, the meagre income of his family lands, and at the end of his life, a salary as professor at the University of Leiden.¹⁰ In his botanical publications, particularly his histories of Spanish and Austro-Hungarian plants (published in 1576 and 1583, respectively), he single-handedly contributed descriptions of several hundred new species to the literature.¹¹

Clusius' books were emphatically not encyclopaedic. He was at pains to include only plants which were previously undescribed or whose earlier descriptions were imprecise or faulty. Writing of the *primula veris*, Clusius remarked that, in addition to the commonly-known forms, there was a peculiar type found in certain meadows around Vienna.¹² His description followed the plant in its life cycle, from germination and unfolding of the leaves to the growth of stems, flowers, and seed pods—noting precisely the form, colour, and flavour or odour of each part. After this description, Clusius listed the places where he had observed the plant, remarked on the ones he transplanted into his garden, mentioned a dried specimen sent to him by a correspondent who had observed it in the Tyrol and around Salzburg, and commented on varieties he had seen in Eng-

⁹ H. Bock, *Kreütterbuch*, ed. M. Sebizius (Strasbourg 1577); A. Arber, *Herbals: Their Origin and Evolution*, 2nd ed. (Cambridge 1938) 70-72.

¹⁰ F. W. T. Hunger, *Charles de l'Escluse (Carolus Clusius) Nederlandsch kruidkundige, 1526-1609* ('s Gravenhage 1927-43) 1.325.

¹¹ C. Clusius, *Rariorum aliquot stirpium per Hispanias observatarum Historia* (Antwerp 1576); idem, *Rariorum aliquot stirpium, per Pannoniam, Austriam, & vicinas quasdam provincias observatarum historia* (Antwerp 1583).

¹² Clusius, *Rariorum aliquot stirpium per Pannoniam...historia* (as in n.11) 339-343.

lish gardens. The chapter ends with brief comments on the plant's various names.

The reader who compares Clusius' description of this plant with Dodoens' notices several important differences. First, Clusius' description includes a more precise account of the plant's temporal development. In addition, he provided exact information on where the plant had been found, not merely the sorts of areas in which it grows. Finally, Clusius nodded only perfunctorily to medicine, with the simple remark that, from taste, this plant has the same uses as other *primulae*. This text is clearly the work of a botanist, not a writer on *materia medica*, and testifies that the public interest in plants for their own sake was great enough for Clusius' publisher, the Antwerp firm of Plantin, to sink its capital into a lavishly-illustrated botanical work whose interest to practically-oriented apothecaries and physicians would be minimal.

Clusius' histories, and similar contemporary texts, quickly led to works like Dodoens' history becoming outdated: the discovery of hundreds of new plants left earlier encyclopaedias woefully incomplete.¹³ The new descriptions brought with them two related problems. Not only were more plants known, but also, in an age before rules of nomenclature, the same plant was often described, and given a different name, by several authors. The increasingly unmanageable *copia verborum et rerum* in the *res herbaria* marks the emergence of botany as a discipline with its own community of practitioners. Circa 1550, Conrad Gessner could list only seventy-two writers on botany in the past nine centuries.¹⁴ The next five decades saw dozens of new books in the field.¹⁵ Throughout western Europe, scholars were exploring countrysides, finding new plants, exchanging them with one another, and publishing their descriptions. By the 1580s, the botanical tyro had to master a tremendous number of words, things, and authorities.

¹³ A. Cailleux, "Progression du nombre d'espèces de plantes décrites de 1500 à nos jours," *Revue d'histoire des sciences* 6 (1953) 42-49, outlines the growing number of descriptions.

¹⁴ C. Gessner, "De rei herbariae scriptoribus," in Tragus, *De stirpium commentarii* (as in n.8) sig. [a8v] ff.

¹⁵ A. v. Haller, *Bibliotheca botanica* (Zürich 1771-72) 1.281-381.

The *Historia generalis plantarum* attempted to solve this problem. A collaborative effort of Jacques Dalechamps, Jean Bauhin, and Jean Desmoulins, the work appeared in 1586-87 without an author's name. The dedication and a brief preface were contributed by its publisher, Guillaume Rouille of Lyon.¹⁶ In conception and execution, the Lyon herbal was a comprehensive, encyclopaedic history of plants. Rouille, with a publisher's modesty, claimed in the dedication that unlike earlier books, it contained all—or almost all—plants that were known.¹⁷ The claim was reinforced by the running head, which proclaimed the work to be a *historia omnium plantarum*. Rouille further prided himself on the arrangement of the text, which, unlike the ancients' works, presented plants in an artful order.¹⁸

On examining the text, one begins to fathom why none of its compilers was willing to put his name to it. The seventh book is devoted to "plants whose flowers please," and it is there that we find the entry for the *primula*.¹⁹ After listing its names, the Lyon herbal describes the three types mentioned by Dodoens, along with a fourth. It then adds, and describes, a fifth and a sixth—but a total of seven types are illustrated. The descriptions are followed by an excursus on whether this plant is the *verbascum* of Dioscorides, as several authors believed—but the discussion is useless because the Lyon herbal confused *verbascum* with *verbasculum*. After an account of the *primula*'s medical virtues, drawn from Fuchs' herbal, the *auricula ursi*, generally treated as a different plant by other authors, is appended to the chapter.

The impression that the Lyon herbal is a poorly-edited collection of notes was shared by many contemporaries. Clusius waited eagerly for its publication, despite his mixed feelings about Dalechamps as a botanist, but never mentioned it once it was published—possibly out of sheer disappointment.²⁰ The supposedly

¹⁶ *Historia generalis plantarum* (Lyon 1586-87). Contemporaries often referred to it as the *Historia lugdunensis*.

¹⁷ *Historia generalis plantarum* (as in n.16) sig. *2r.

¹⁸ *Historia generalis plantarum* (as in n.16) sig. *4r. See G. Métailié, "Histoire naturelle et humanisme en Chine et en Europe au XVI^e siècle: Li Shizhen et Jacques Dalechamp," *Revue d'histoire des sciences* 42 (1989) 353-74.

¹⁹ *Historia generalis plantarum* (as in n.16) 833-838.

²⁰ Hunger, *Charles de l'Escluse* (as in n.10) 2.222.

complete herbal did not include many of the plants mentioned by Clusius in his works. It omitted, for instance, his red-flowered *primula*. When Caspar Schwenckfeldt, a physician and botanist in Saxony, finally got hold of a copy in Dresden in 1589, he was disappointed: the book was put together with little judgement and in a confused order.²¹ Schwenckfeldt's correspondent, the Basel naturalist Caspar Bauhin, was even more upset. Bauhin eventually took time from his busy schedule—teaching anatomy and botany—to write a pamphlet pointing out hundreds of errors in the Lyon herbal.²²

Nonetheless, the work was more comprehensive than any of its predecessors. Adriaan van der Spiegel, in the first botanical textbook, thought it was better than all previous works, despite the errors that Bauhin pointed out.²³ The fact that Bauhin found it worthwhile to devote a pamphlet to correcting it shows that it was worth study. The Lyon herbal was indeed useful, useful enough to be translated into French in the seventeenth century, but by itself it could not function as a complete guide to the world of plants.²⁴

The failure of the Lyon herbal to live up to its lofty goals did not mark the end of encyclopaedic dreams in Renaissance botany. Caspar Bauhin planned a *magnum opus* in the field. By 1590—shortly after the publication of the Lyon herbal—this project had taken the form not of a history of plants but of a dictionary of their synonyms.²⁵ Bauhin's choice of form was a response to the *confusio verborum* reigning in late sixteenth-century botany.

Born in 1560, Bauhin had experienced firsthand the difficulties produced for learners by the development of botany as a discipline.

²¹ C. Schwenckfeldt to C. Bauhin, 1.3.1589 (Basel Universitätsbibliothek MS. G2 I 1, fol. 76).

²² C. Bauhin, *Animadversiones in historiam generalem plantarum Lugduni editam* (Frankfurt a.M. 1601). A certain Pons also published corrections to the Lyon herbal in 1600: E.H.F. Meyer, *Geschichte der Botanik* (Königsberg 1854-57) 4.397-398.

²³ A. v.d. Spiegel, *Isagoges in rem herbarium libri duo* (Padua 1606) 129-130.

²⁴ Meyer, *Geschichte der Botanik* (as in n.22) 4.397, 399.

²⁵ C. Schwenckfeldt to C. Bauhin, 15.8.1585 (Basel Universitätsbibliothek MS. G2 I 1, fol. 71-72); D. Wirsing to C. Bauhin, 25.5.1590 and 2.1.1592 (*ibidem*, fol. 240-241).

He realised that both beginners and experts needed a guide not only to the different forms of plants but to the literature describing them. The problem of synonyms was particularly vexed: the same plant could have a dozen or more Latin names, each given by a different botanist. Bauhin's *synonyma* were to clean this Augean stable.²⁶

The notion of a list of synonyms was itself not particularly novel, but earlier lists were usually short lexica identifying Greek, Latin, and vulgar names.²⁷ Bauhin's innovation was to combine such a list with precise references to the literature, and—on the basis of his herbarium, a collection of dried plants—to pronounce decisively on the identity of plants. The *Phytopinax* (1596) was only partially complete when published, though it was immediately recognised as very useful. Whole herbaria were rearranged according to its ordering of the plant world.²⁸ It was followed, twenty-seven years later, by a complete version: Bauhin's *Pinax theatri botanici* (1623).²⁹

The title-page of this work proclaimed it to be an "index to the works of Theophrastus, Dioscorides, and the botanists who have written in the last century." It listed some six thousand plants described by these writers, with their synonyms and, in many cases, *differentiae*. Bauhin divided the *Verbasculum seu Primula veris* into three main types, each with several species. Under *verbasculum flore simplici*, he listed four species, each given a diagnostic name which distinguishes it from the others. The first, *verbasculum pratense odoratum*, had twelve synonyms. The remaining three species of this genus have also been given several names by different authors. The second genus, *verbasculum flore multiplici*, has four species, each with an average of four names. Finally, under *verbasculum alpinum* we find two genera, the first of which is Clusius' *primula veris flore rubro*. Because this plant is less well

²⁶ C. Bauhin, *Phytopinax seu Enumeratio plantarum ab herbariis nostro seculo descriptarum* (Basel 1596) sig. α3v-α4v.

²⁷ E.g. C. Gessner, *Catalogus plantarum Latinè, Graecè, Germanicè, et Gallicè* (Zürich 1542).

²⁸ W. Rytz, "Das Herbarium Felix Platters: Ein Beitrag zur Geschichte der Botanik des XVI. Jahrhunderts," *Verhandlungen der Naturforschenden Gesellschaft in Basel* 44 (1. Teil, 1932-33) 1-222.

²⁹ C. Bauhin, *Pinax theatri botanici* (Basel 1623). Though slightly different in organisation from the *Phytopinax*, its purpose is essentially the same.

known, Bauhin added a brief diagnostic description to the list of synonyms.³⁰

Bauhin's *Pinax* thus separated the task of encyclopaedic comprehensiveness and precise description. The reader had immediate access to the multiplicity of the plant world, including the six hundred species Bauhin had described three years earlier in his *Prodromus*.³¹ But to find the descriptions, he had to turn elsewhere, to one of the authorities cited in Bauhin's text. The general history of plants, a commonplace in the 1540s and 1550s, had become an elusive dream—when not, as the Lyon herbal showed, an organisational nightmare. Its replacement, the index to the botanical literature, provided a guiding thread through the obscure forest of texts.

If the *Pinax* was encyclopaedic on a large scale, Bauhin also produced a small-scale encyclopaedic text: a catalogue of plants growing in the vicinity of Basel.³² As part of his teaching duties at Basel, Bauhin had frequently led students into the countryside on botanising excursions.³³ The 1622 *Catalogus*, which listed all the plants to be found within a mile of Basel and those on the popular route to the Wasserfallberg, condensed his detailed knowledge of the area and made it available to the next generation of students. The *Catalogus*, unlike traditional histories of plants, was restricted to a small region, but within that region it provided an exhaustive account of the flora. The origins of the modern local flora are to be found in the *Catalogus* and similar contemporary pedagogical texts.³⁴

The *Pinax* and *Catalogus*, as comprehensive, encyclopaedic texts, demonstrate the growing tension between botany as a propaedeutic to medicine, reflected in its institutional location in medical schools, and as an independent study. They gave prominent place to Galen's dictum that "the physician should know all plants, if that is possible; if not, at least those that are commonly used in

³⁰ Bauhin, *Pinax* (as in n.29) 241-242.

³¹ C. Bauhin, *Prodromos theatri botanici* (Frankfurt a.M. 1620).

³² C. Bauhin, *Catalogus plantarum circa Basileam sponte nascentium* (Basel 1622).

³³ Bauhin, *Phytopinax* (as in n.26) sig. [*4]v.

³⁴ L. Jungermann's *Catalogus plantarum quae circa Altorfium Noricum et vicinis quibusdam locis* (Altdorff 1615) is often considered the first local flora.

medicine."³⁵ Yet the traditional pharmacopoea increased little over the course of the century, with the exception of a few spectacular introductions such as guaiacum and tobacco.³⁶ A Basel lecturer on *materia medica* in 1607—possibly Bauhin—discussed only those simples that were in everyday use.³⁷ Hence most of the plants included in Bauhin's botanical works were never employed in therapeutics. The rhetoric of botany as an aid to medicine did not square with reality. Adriaan van de Spiegel complained that most of the phytographers who described hundreds of new species had no interest in their medical properties.³⁸ The *Catalogus*, an encyclopaedic local flora ostensibly aimed at medical students, and the *Pinax*, an encyclopaedia whose contents were purely botanical, embodied these contradictions.

Taken together, the *Pinax* and *Catalogus* also demonstrate an ingenious solution to the problem of information management. Neither, by itself, was a complete encyclopaedic guide to plants. In fact, Bauhin considered the *Pinax* only an interim solution. His projected *Theatrum botanicum* would finally fulfil the task that the Lyon herbal had attempted and failed to do.³⁹ But this task proved too great; when Bauhin died in 1624, the work was still incomplete. Eventually the first volume appeared, edited by Bauhin's son Johann Caspar—but that was in 1658.⁴⁰ By that time, the work was outdated, and no further volumes were published. When the dream was finally realised, in John Ray's *Historia plantarum* (1686-1704), it was by a man who was first and foremost a naturalist, not a physician. And even in Ray's time, the *Pinax* was not forgotten: it was still considered useful, so much so that William Sheridan, an English botanist of the late seventeenth century, devoted tremen-

³⁵ Bauhin, *Pinax* (as in n.29) t.p.

³⁶ The increasing regulation of apothecaries in the sixteenth century had a conservative effect: H. Cook, "Physicians and Natural History," in: N. Jardine, J.A. Secord, E.C. Spary (eds.), *Cultures of Natural History* (Cambridge 1996) 97.

³⁷ "Praelectiones de simplicibus, in officinis usitatis" (Basel Universitätsbibliothek MS. K I 12) fol. A2r.

³⁸ Spiegel, *Isagoge* (as in n.23) 128.

³⁹ E. Vorst to C. Bauhin, 11.3.1619 (Basel Universitätsbibliothek MS. G2 I 1, fol. 226).

⁴⁰ C. Bauhin, *Theatri botanici sive historiae plantarum liber primus*, ed. J.C. Bauhin (Basel 1658).

dous efforts to revising it.⁴¹ Seventeenth-century botany found guides to its literature indispensable. Representing and ordering the world was impossible unless the representations were themselves put in order.

As the transformation in botanical encyclopaedias between 1550 and 1620 shows, an adequate account of encyclopaedic texts must take into consideration not only their form but also their function within the community that produces and employs them. In the case of Renaissance botany, this community was in the process of formation and differentiation, a process marked by the transformation of botanical encyclopaedias from medically-oriented histories of plants to botanically-oriented tables of plant names and *differentiae* alongside specialist accounts of particular types of plants or particular geographical areas. At the same time, the older form persisted, but its role in botany changed dramatically. The history of plants, which at one time claimed to represent the entire plant world, had become merely another collection of individual descriptions. The texts remained the same, but their meaning did not.

The persistent attempts, in the late sixteenth century, to produce botanical encyclopaedias—comprehensive guides to the diversity of plant species—also underscores an important difference between Renaissance botany and the contemporary culture of curiosities. In cabinets of curiosities, the world was experienced by contemplating its rarities—the marvels of art and nature. Botanists, on the other hand, learned about the world by experiencing the commonplace, and by cataloguing it. That their encyclopaedic catalogues changed greatly between 1550 and 1620 underscores the extent of their effort and the variety in natural history which directed, persistent observation could uncover.

⁴¹ J. Ewan and N. Ewan, *John Banister and his natural history of Virginia, 1678-1692* (Urbana 1970) 12-17.

ORGANISATION OF KNOWLEDGE

ORGANISATION OF KNOWLEDGE AND ENCYCLOPAEDIC *ORDO*: FUNCTIONS AND PURPOSES OF A UNIVERSAL LITERARY GENRE

CHRISTEL MEIER

I. THE CONCEPT OF TOTALITY

The work of the encyclopaedist is the order of things, an order he does not find but must create. A quick glance at a "certain Chinese encyclopaedia" quoted by Jorge Luis Borges proves this observation. In this encyclopaedia all animals are classified and arranged in the following way: "(a) those that belong to the Emperor, (b) embalmed ones, (c) those that are trained, (d) suckling pigs, (e) mermaids, (f) fabulous ones, (g) stray dogs, (h) those that are included in this classification, (i) those that tremble as if they were mad, (j) innumerable ones, (k) those drawn with a very fine camel's hair brush, (l) others, (m) those that have just broken a flower vase, (n) those that resemble flies from a distance."¹

In his reflections on this surprising, exhilarating, even frightening taxonomy, Michel Foucault writes: "The fundamental codes of a culture—those governing its language, its schemas of perception, its exchanges, its techniques, its values, the hierarchy of its practices—establish for every man, from the very first, the empirical orders with which he will be dealing and within which he will be at home. At the other extremity of thought, there are the scientific theories or the philosophical interpretations which explain why order exists in general, what universal law it obeys, ... and why this particular order has been established and not some other."² The practical encyclopaedia can be situated between these opposing poles of fundamental codes and scientific theories. In their various classifications and arrangements of knowledge encyclopaedists always try to reach a compromise between these binary opposites,

¹ Jorge Luis Borges, *Other Inquisitions 1937-1952*, tr. Ruth L.C. Simms (Austin 1964) 103.

² Michel Foucault, *The Order of Things: An Archeology of the Human Sciences* (New York 1973) xx.

and this intermediacy is a characteristic and significant feature of this literary genre. In the introduction to his encyclopaedia in 1630 Alsted drew attention to the tension between these poles, which encyclopaedists have to face as they combine the order of individual things and the overall classification of the world: "Encyclopaedia is the methodical collection of all things in this life that can be learned by man."³

In the Middle Ages encyclopaedists made use of two general systems of classification to arrange information and to illustrate the interdependence of the different arts and sciences (later on they proceeded to alphabetical order).⁴ These systems were based either on traditional conceptions of the order of the world or on rational and scientific approaches to knowledge, i.e. on disciplines or on a system of sciences. Each of these general systems can be further subdivided into two different concepts that often coexisted in the Middle Ages. The following systems and subdivisions can be distinguished.

1. *Ordo rerum*

In order to give a comprehensive and coherent representation of the world, medieval encyclopaedists either re-arranged and combined traditional and well-known depictions or resorted to philosophical concepts that served to explain all known phenomena and assigned them a specific place in the order of the world. Two examples may illustrate this: it was Isidore of Seville, the founder of medieval encyclopaedias, who combined different classical concepts in the systematic arrangement of knowledge in his *Etymologiae*: the arts, theology, cosmology, geography, as well as social sciences and cultural studies.⁵ In those parts dealing with the arts, he adapted the

³ *Encyclopaedia est methodica comprehensio rerum omnium in hac vita homini discendarum*. Johann Heinrich Alsted, *Encyclopaedia septem tomis distincta* (Herborn 1630; Facs.-reprint, ed. Wilhelm Schmidt-Biggemann, Stuttgart/Bad Cannstatt 1989) I 49.

⁴ Cf. Heinz Meyer, "Ordo rerum und Registerhilfen in mittelalterlichen Enzyklopädiehandschriften," *Frühmittelalterliche Studien* 25 (1991) 315-339.

⁵ Isidorus Hispalensis, *Etymologiae*, ed. W.M. Lindsay, 2 vols. (Oxford 1911ff.). See Christel Meier, "Der Wandel der Enzyklopädie des Mittelalters vom Weltbuch zum Thesaurus sozial gebundenen Kulturwissens: am Beispiel der Artes mechanicae," in: *Enzyklopädien der Frühen Neuzeit*, ed. Franz M. Eybl, Wolfgang

ancient encyclopaedic tradition of Cato, Celsus and Varro; in those sections dealing with cosmology, geography, zoology, botany and mineralogy, he adopted the stoic concept employed by Pliny in his *Naturalis historia*.⁶ The same goes for Hrabanus Maurus.⁷ Although he changed the Isidorian model by reorganising knowledge into a hierarchy moving downward from God to inanimate things, completely omitting scientific knowledge and introducing an allegorical interpretation, the overall character of his work is an agglomeration of traditional concepts.⁸ In both cases the compilatory method leads to various inconsistencies in the systematic classification and arrangement of knowledge.

The second type of encyclopaedia, based on philosophical concepts, first appears in a rather incomplete form in the twelfth century. Honorius Augustodunensis expounded the *dispositio mundi* in his encyclopaedia *Imago mundi*.⁹ Beginning with the *archetypus mundus*, he investigated its appearance by describing the elements and their different mixtures in the various phenomena and classes. All things and phenomena can be assigned to the four elements: not only geography to earth, weather to air, and stars to fire, but all living beings as well: "Things that walk are assigned to earth, things that swim to water, things that fly to air, things that shine to fire."¹⁰ The first book on "space" is followed by a book on "time" and the division of time, and the third book deals with time in the sense of "history." Honorius' conception of the classification of

Harms, Hans-Henrik Krummacher and Werner Welzig (Tübingen 1995) 19-42, here citing 27-29.

⁶ Plinius, *Naturalis historia*, ed. Ludwig Ian and Carl Mayhoff (Leipzig 1875-1906; Stuttgart 1967); Meier, "Der Wandel der Enzyklopädie" (as in n.5) 25-27.

⁷ Hrabanus Maurus, *De rerum naturis (De universo)* (PL 111, 9-614).

⁸ Christel Meier, "Vom *homo coelestis* zum *homo faber*. Die Reorganisation der mittelalterlichen Enzyklopädie für neue Gebrauchsfunktionen bei Vinzenz von Beauvais und Brunetto Latini," in: *Pragmatische Schriftlichkeit im Mittelalter. Erscheinungsformen und Entwicklungsstufen*, ed. Hagen Keller, Klaus Grubmüller und Nikolaus Staubach (München 1992) 157-175, here citing 158-160; Heinz Meyer, "Zum Verhältnis von von Enzyklopädie und Allegorese im Mittelalter," *Frühmittelalterliche Studien* 24 (1990) 290-313, here citing 294-297.

⁹ Honorius Augustodunensis, "Imago mundi," ed. Valerie I.J. Flint, *Archives d'histoire doctrinale et littéraire du moyen âge* 57 (1983) 7-153, here citing 49.

¹⁰ *Deputantur vero terre gradientia, aque natantia, aeri volantia, igni radiantia*. Honorius Augustodunensis, "Imago mundi" (as in n.9) 50.

knowledge had a formative influence on the compilation and arrangement of knowledge in later encyclopaedias. Bernardus Silvestris made use of it in his *Cosmographia*, as did Alain de Lille in his *De planctu naturae*.¹¹ With regard to medieval encyclopaedias Bartholomaeus Anglicus deserves special attention, as he applied this philosophical approach in the arrangement of *De rerum proprietatibus*.¹² In his preface he refers by name only to Pseudo-Dionysius, as a philosopher who pointed out the interdependence of the intelligible and the invisible world and tried to explain it.¹³ In order to present a systematic and unified order, Bartholomaeus mainly confined himself to nature and the natural sciences, paying less attention to cultural phenomena. One sequence proceeds from the invisible world (God, the angels, the soul) to the rational human being, a second one from the macrocosm through a description of the elements—the basis of his taxonomy—to the various phenomena. This section is followed by a reflection on time: “After the treatise on the properties of time and its parts, we must deal with inferior things and material creatures: i.e. the elements and those things that are materially composed of the elements. Matter and form are the beginnings of every physical thing... Matter is the cause of the individuation of things,” etc.¹⁴ His authorities at this point are Aristotle as well as Arabic and Occidental sources, among them Pseudo-Dionysius. He finishes his encyclopaedia with a book

¹¹ Meier, “Vom homo coelestis zum homo faber” (as in n.8) 164-166.

¹² Bartholomaeus Anglicus, *De rerum proprietatibus* (Frankfurt 1601; reprint 1964); cf. Heinz Meyer, “Bartholomaeus Anglicus, *De proprietatibus rerum*. Selbstverständnis und Rezeption,” *Zeitschrift für deutsches Altertum und deutsche Literatur* 117 (1988) 237-274, here citing 241f.

¹³ Bartholomaeus Anglicus, *De rerum proprietatibus* (as in n.12) 1: *Utile mihi et forsitan aliis, qui naturas rerum et proprietates per sanctorum libros nec non et philosophorum dispersas non cognouerunt, ad intelligenda aenigmata scripturarum, quae sub symbolis et figuris proprietatum rerum naturalium et artificialium a Spiritu sancto sunt traditae et velatae, quemadmodum ostendit Beatus Dionysius in Hierarchia Angelica, circa principium dicens: Non est aliter nobis possibile lucere divinum radium, nisi varietate sacrorum velaminum anagogice circumuelatum*, etc.

¹⁴ *Completo tractatu de proprietatibus temporis et partium eius, agendum est de inferioribus rebus et materialibus creaturis. De elementis scilicet et eorum quae ex elementis materialiter componuntur. Sunt autem materia et forma omnis rei corporalis principia... Materia enim est causa individuationis rerum etc.* Bartholomaeus Anglicus, *De rerum proprietatibus* (as in n.12) 468.

on the accidentals (colours, scents, flavours, weights, measures, numbers).¹⁵ This mainly Platonic conception of the world, which posits the universe as a series of causes and effects, is appropriate to assign time, space, the elements and all phenomena their proper place in the system of the world.

The concept of the six days of creation had a formative influence on a third system of compilation which became very popular with famous medieval encyclopaedists, as it was legitimised by Scripture and had been the subject of theological and exegetical writings by Basil and other patristic authors.¹⁶ The so-called school of Chartres used it with new force in the twelfth century.¹⁷ This concept conjoins a theology of creation and encyclopaedic knowledge in a *philosophia perennis*, i.e. it depicts a temporal sequence from the creation of the world to the history of mankind, a progression from cosmological to historical time.¹⁸ Thus it connects two fields of knowledge that had been dealt with separately in previous encyclopaedias and in the work of Honorius. The correspondence between the six days and the six ages—which had been pointed out by Augustine¹⁹—made it possible to relate cosmology to history. Isidore had thought of using this concept in his *De natura rerum* as he described the origin of all things and knowledge in God: “therefore beginning with ‘day,’ whose creation was nearly the first in the order of visible things.”²⁰ It was, however, Alexander Neckam who

¹⁵ Bartholomaeus Anglicus, *De rerum proprietatibus* (as in n.12) 1133: *Nunc postremo de quibusdam accidentibus corporalium rerum substantias concomitantibus ... est hic attendendum. Primo de colore, secundo de odore, tertio de sapore, ultimo de liquore.*

¹⁶ Cf. the commentaries on the hexaemeron.

¹⁷ See for instance Nikolaus M. Häring, “The Creation and Creator of the World According to Thierry of Chartres and Clarenbaldus of Arras,” *Archives d’histoire doctrinale et littéraire du moyen âge* 30 (1955) 137-216.

¹⁸ Wilhelm Schmidt-Biggemann, “Enzyklopädie und *Philosophia perennis*,” in: *Enzyklopädien der Frühen Neuzeit* (as in n.5) 1-18 (with bibliography), here citing 9ff.; id., *Topica universalis. Eine Modellgeschichte humanistischer und barocker Wissenschaft* (Hamburg 1983).

¹⁹ Cf. Heinz Meyer, Rudolf Suntrup, *Lexikon der mittelalterlichen Zahlenbezeichnungen* (München 1987) 442ff.

²⁰ [Q]uapropter incipientes a die, cuius paene prima procreatio in ordine rerum uisibilium exstat. Isidore de Séville, *Traité de la nature*, ed. Jacques Fontaine (Bordeaux 1960) 169, cf. p. 1,17ff.

made a first attempt to apply this concept,²¹ and Gregory of Monte Sacro²² and Vincent of Beauvais used it as the basis for the arrangement of knowledge. In his *Speculum naturale* Vincent first writes about God the creator and the angels: "after these, about formless matter and of the fabric of the world, and, in the order of the works of the six days, about the nature and properties of individual things in order; then about the condition of the first man...."²³ He then deals with the *series omnium temporum*.²⁴ Gregory of Monte Sacro, in his still unedited encyclopaedia *De hominum deificatione (Peri tôn anthrôpôn theopôsis, c.1230)* comprising seven books with about 13,000 hexametres, describes all known phenomena of the world and relates them to the six days of creation and a day of rest. He adds a christological interpretation of the significance of the days of creation by establishing a typological relation between the old age, the new age and the final *renovatio*.²⁵ Vincent continues the six days of creation of all things (*Speculum naturale*) with the fall of man and his restitution by knowledge (*Speculum doctrinale*) and with the history of salvation (*Speculum historiale*).²⁶

²¹ Alexander Neckam, *De naturis rerum libri duo*, ed. Thomas Wright (London 1863; reprint Nendeln/Liechtenstein 1967) 2ff., 12ff., 55ff., 127ff., 158ff.; cf. Christel Meier, "Grundzüge der mittelalterlichen Enzyklopädik," in: *Literatur und Laienbildung im Spätmittelalter und in der Reformationszeit*, ed. Ludger Grenzmann and Karl Stackmann (Stuttgart 1984) 467-500, here citing 474f.

²² Cf. Udo Kindermann, *Der Dichter vom Heiligen Berge. Einführung in das Werk des mittellateinischen Autors Gregor von Montesacro, mit Ersteditionen und Untersuchungen* (Darmstadt 1989) 9ff.: "Das Lehrgedicht," 194ff.: "Anhang 3: Lateinischer Text des Prologes zur Deificatio," 200f.: the contents of the seven books corresponding to the seven days of the creation of the world (Gen. 1f.); Eyvind Carl Ronquist, *Gregorius de Monte Sacro, Peri ton anthropon theopoieseos. A Study and Partial Edition*, 2 vols. (Diss. Chicago 1975) II 324ff. A full edition of the encyclopedia is in preparation by Bernhard Pabst/Erlangen.

²³ ... post haec de materia informi et de fabrica mundi ac iuxta seriem operum VI dierum de natura et proprietatibus singularium per ordinem rerum; deinde vero de conditione hominis primi.... Cf. Meier, "Grundzüge" (as in n.21) 475 and n.56; Vincentius Bellovacensis, *Speculum quadruplex sive Speculum maius*, 4 vols. (Douai 1624; reprint Graz 1964).

²⁴ Cf. Meier, "Vom homo coelestis zum homo faber" (as in n.8) 169 and n.73.

²⁵ See Kindermann, *Der Dichter vom Heiligen Berge* (as in n.22) 200ff. each day of the creation is related to a certain period of Christ's life on earth.

²⁶ Cf. Meier, "Vom homo coelestis zum homo faber" (as in n.8) 166ff. See also

2. *Ordo artium*

So far the representation of the world in medieval encyclopaedias has been explained as the creation of an *ordo rerum* based on pre-philosophical, traditional and sometimes empirical classifications of knowledge, on a philosophical concept, or on the interpretation of the biblical story of creation. There is, however, a different system for the arrangement and representation of knowledge based on the *ordo artium*. This system led to a strikingly different view of the world as it shifted from a mainly cosmological to a more anthropocentric perspective. In the Middle Ages there are two principal systems of sciences that influenced the compilation of knowledge in encyclopaedias: the seven liberal arts and the Aristotelian classification of sciences. Although numerous ancient and medieval authors wrote extensively about the seven liberal arts—from Varro to Martianus Capella, Cassiodorus, Alcuin, Remigius and Alain de Lille—and characterised them as an ideal way to knowledge,²⁷ none of them—not even Isidore—made use of this concept as a coherent overall principle for the arrangement of knowledge.²⁸ In the thirteenth century encyclopaedists began to arrange information in accordance with scientific principles, following Aristotle's conception as it had been adapted by Hugh of St. Victor in his *Didascalicon*.²⁹ Hugh distinguished four fields of knowledge, adding mechanical knowledge to Aristotle's distinction of theoretical, practical and logical. He assigned the *trivium* to the field of logic and the *quadrivium* to theory.³⁰ Retaining this division, Vincent of Beauvais

Monique Paulmier-Foucart, "Ordre encyclopédique et organisation de la matière dans le *Speculum maius* de Vincent de Beauvais," in: *L'encyclopédisme. Actes du Colloque de Caen 1987*, ed. Annie Becq (Paris 1991) 201-215; id. and Serge Lusinian, "Vincent de Beauvais et l'histoire du *Speculum maius*," *Journal des Savants* 1 (1990) 97-124.

²⁷ L. Hödl, "Artes liberales," in: *Lexikon des Mittelalters* 1 (1980) 1057-1062 (lit.); Paul Abelson, *The Seven Liberal Arts* (New York 1965); cf. Harald Fuchs, "Enkyklios Paideia," *Reallexikon für Antike und Christentum* V (1962) 365-398; Jutta Tezmen-Siegel, *Die Darstellungen der septem artes liberales in der Bildenden Kunst als Rezeption der Lehrplangeschichte* (München 1985) 9ff., 70ff.

²⁸ Isidorus Hispalensis, *Etymologiae* (as in n.5) confining the arts to Book 1-3.

²⁹ Hugo de Sancto Victore, *Didascalicon. De studio legendi*, ed. Charles H. Buttner (Diss. Washington 1939).

³⁰ Hugo de Sancto Victore, *Didascalicon* (as in n.29).

depicted the various arts and sciences in a separate section of his *Speculum maius*, the *Speculum doctrinale*, and in doing so he led the way to a change in the organisation of knowledge from the *ordo rerum* to the *ordo artium*.³¹ Vincent looked to Isidore, Hugh and Richard of St. Victor for guidance: "the first of whom in the book of *Etymologies*, among the other things he deals with, touches briefly on a few points concerning every science; the second, in his book *Didascalicon*, divides and subdivides all of knowledge and briefly describes the matter of the individual sciences."³² He relied on the *libri philosophorum* to give substance to his classification and divided the seventeen books of his *Speculum doctrinale* into four sections, proceeding from logic with grammar, dialectic, rhetoric and poetics, through practical philosophy with ethics, economics, politics and law, and mechanical knowledge including theoretical and applied medicine, to theoretical philosophy with physics, arithmetic (*quadrivium*) and theology.

In his *Trésor* Brunetto Latini changes the order of this sequence. He begins with an outline of theoretical knowledge and finishes with practical knowledge. Moreover, he subsumes rhetoric and the mechanical arts under practical knowledge.³³ This change can be explained by the main purpose of the encyclopaedia, which I shall deal with later on. Brunetto thus avoids a problem Vincent still had to face: in order to connect the three main parts of his encyclopaedia, Vincent had to rely on a cosmological and spiritual perspective. He related the various fields of knowledge directly to the rational understanding of man who, being created in the image of God, reflected God's knowledge which is *causa omnium naturarum*,

³¹ See Meier, "Der Wandel der Enzyklopädie" (as in n.5) and below, n.39; cf. also Meier: as in n.26.

³² ... *quorum primus in libro Ethimologiarum inter cetera de quibus agit etiam de unaquaque scientia pauca breuiter tangit; secundus in libro Didascalicon scientiam uniuersaliter diuidit ac subdiuidit singularumque materiam breuiter describit*. Vincent of Beauvais, "Libellus apologeticus": ed. Serge Lusignan, *Préface au 'speculum maius' de Vincent de Beauvais: réfraction et diffraction* (Montréal/Paris 1979) 122.

³³ Brunetto Latini, *Li livres dou tresor*, ed. Francis J. Carmody (Berkeley/Los Angeles 1948; reprint Genève 1975) 17-22. Cf. Christel Meier, "Cosmos politicus. Der Funktionswandel der Enzyklopädie bei Brunetto Latini," *Frühmittelalterliche Studien* 22 (1988) 315-356; id., "Vom homo coelestis zum homo faber" (as in n.8) 173-175, here citing 342ff.

lumen omnium rationum, finis omnium actionum. By means of this perspective Vincent achieved a coherence between rational understanding and prolific information that was fully developed later on.³⁴ The arrangement of knowledge in the eighteenth-century French *Encyclopédie* can be traced back to this concept.³⁵

On the threshold of the Renaissance, Gregor Reisch once more adapted the system of the seven liberal arts to arrange information—by then a seemingly old-fashioned way of organising knowledge. On close inspection, however, Reisch's *Margarita philosophica*³⁶ offers a very idiosyncratic mixture of the two medieval *divisiones (philosophiae) disciplinarum*. There is a conspicuous discrepancy between the overall structure of the book and the development of ideas. With regard to structure there is a striking predominance of the seven liberal arts, as their description comprises two thirds of the whole book. The remaining third only offers additional material: sections on the *philosophia naturalis*, on the human soul, and *philosophia moralis*. With regard to the development of ideas there is, however, a predominance of the Aristotelian *divisio* and its specific intentions. The seven liberal arts do not simply serve as a preparatory course, they are treated as theoretical and scientific disciplines, even as a whole university course, and there are reflections on each of them, their specific theories and practices. Reisch emphasised the natural sciences and thus set an example to later encyclopaedists.³⁷ The tension, even rivalry, between these two concepts in the *Margarita* can be resolved, as will be shown later.

II. THE CONCEPT OF UTILITY

By definition an encyclopaedia is a book of universal knowledge

³⁴ Meier, "Vom *homo coelestis* zum *homo faber*" (as in n.8) 169-171.

³⁵ Ibid.; cf. also Ulrich Dierse, *Enzyklopädie. Zur Geschichte eines philosophischen und wissenschaftstheoretischen Begriffs* (Bonn 1977) 52ff.

³⁶ Gregor Reisch, *Margarita philosophica* (Basel 1517; reprint Düsseldorf 1973, ed. Lutz Geldsetzer).

³⁷ Dierse, *Enzyklopädie* (as in n.35) 11-13; cf. Robert Ritter von Srbik, "Die *Margarita philosophica* des Gregor Reisch (†1525)," in: *Denkschriften der Akademie der Wissenschaften in Wien, Mathematisch-naturwiss. Klasse* 104 (Wien 1941) 85-205, here citing 92-108.

and has to fulfill two conditions: the systematic arrangement of information, and usefulness. It is written to be used and must serve certain purposes in a specific social and cultural context. Both principles had a decisive influence on the writing of encyclopaedias and the arrangement of knowledge. In research the misinterpretation of, indifference to, or even ignorance of this dual determination of encyclopaedias and the ensuing consequences have not only led to a controversial discussion about the definition of this genre, but some years ago it was even suggested that the term "encyclopaedia" should no longer be used when talking about medieval book culture.³⁸ These difficulties can be avoided by focussing on the following questions:

- a) For whom did encyclopaedists write?
- b) What purpose was the encyclopaedia meant to fulfill for its intended audience?
- c) What is the specific socio-cultural context of the encyclopaedia?

The answers to these questions may lead to a better understanding of the classification and arrangement of knowledge in medieval encyclopaedias and their functions. Set against their social and cultural background, the modifications of medieval universal concepts no longer appear to be distortions but can be analysed and explained as an indication of the variety of encyclopaedias and an expression of the functions they had to fulfill. Variations and modifications of general rules and principles result from specialising, from the diverse interests of groups, and from individual needs and demands in specific situations. Prologues, dedications and the other forms of introductory framework indicate the *utilitas* of an encyclopaedia. By means of accentuation and selection as well as addition, the overall structure of each work is adapted to the specific purposes of its readership.

In the following I shall distinguish several types of occidental encyclopaedias from the ninth to the sixteenth century according to

³⁸ See for instance Dierse, *Enzyklopädie* (as in n.35) 1ff.; Traude-Marie Nischik, *Das volkssprachliche Naturbuch im späten Mittelalter. Sachkunde und Dinginterpretation bei Jacob von Maerlant und Konrad von Megenberg* (Tübingen 1986) 22ff.

their function. These types are influenced by social class, by institutions and by professions. Without laying claim to completeness I shall distinguish:

1. political encyclopaedias
2. school encyclopaedias
3. monastic encyclopaedias
4. preachers' encyclopaedias
5. medical encyclopaedias
6. economic encyclopaedias
7. university encyclopaedias
8. domestic encyclopaedias

This distinction avoids the impression of a simple linear development from a natural encyclopaedia to a thesaurus of cultural knowledge.³⁹

1. Political encyclopaedias

The most important political encyclopaedia in Western Europe during the Middle Ages is Brunetto Latini's *Trésor*. Brunetto applies the Aristotelian concept to the arrangement of information, yet there are important modifications. He begins with an outline of theory as a kind of preparatory course which until then had been considered to be the most dignified of all sciences. Moreover, in his first book he gives *in nuce* all information presented in previous encyclopaedias, including history. His main interest, however, is in practical philosophy, and he distinguishes between ethics and economics as private practice (2nd book) and politics as public practice, which he regards as the most dignified of all sciences (3rd book). Brunetto transfers rhetoric from the domain of logical knowledge to that of politics and treats rhetoric and politics as theoretical politics, i.e. politics performed by words, which is complemented by mechanics as practical politics, i.e. politics performed by doing. The purpose of this encyclopaedia is obvious: it is a handbook for a politician—to be more precise, a guide for the specific use of the *Podestà*, the governor of a town in Northern Italy. Bru-

³⁹ Meier, "Der Wandel der Enzyklopädie" (as in n.5) 30ff.; cf. Stefan Rhein, "Die *Cyclopaedia Paracelsica Christiana* und ihr Herausgeber Samuel Siderocrates: Enzyklopädie als anti-humanistische Kampfschrift," in: *Enzyklopädien der Frühen Neuzeit* (as in n.5) 81-97, here citing 91f.

netto Latini refers to his intended audience explicitly as a governor, as distinct from the contemporary French kings whom he knew in exile. Furthermore, Brunetto gives explicit justification for his main emphasis on politics and rhetoric.⁴⁰

2. *School encyclopaedias*

About ten years after Brunetto Latini, Konrad of Mure, for decades choirmaster and *scholasticus* at the Zurich Großmünster and leader of its *schola Carolina*, wrote an encyclopaedia for use in schools, the *Fabularius* (1273),⁴¹ which became very popular during the following centuries. This work is a rather unconventional thirteenth-century model of a school encyclopaedia. It fulfills all the requirements of literary teaching and was particularly designed as a complete guide to the reading of the *auctores*, especially the poets. Above all, it is an alphabetically ordered encyclopaedic dictionary with many entries on historical and mythological figures from antiquity, on writers, as well as on political, historical and doctrinal expressions; only a few entries deal with biblical figures or medieval historical persons. Moreover, in about 500 hexametres Konrad provides a complete compendium of the ancient Gods, which he copied from his own *Novus Graecismus*.⁴² A kind of concordance to biblical and ancient pagan history serves as an introduction to the dictionary and he adds a list of stones, plants and trees (*De lapidibus*, *De plantis*, *De arboribus*) in an appendix. He does not write about animals and geography but refers the reader to his works *De naturis animalium* and *De propriis nominibus fluviorum et montium*. As in Isidore's *Etymologiae* there are long remarks on philology: grammar and rhetoric are the most important arts Konrad deals with in the *praefatio* and the epilogue, and he refers to them time and again throughout the whole text. In these passages he sketches his literary theory. Taking into account the additional mate-

⁴⁰ Brunetto Latini, *Tresor* (as in n.33) 17, 20f.; Meier, "Cosmos politicus" (as in n.33) 350ff.

⁴¹ An edition of the *Fabularius* is in preparation at Bonn University; an early printed edition from Basel (about 1470) has a shortened version of the text; cf. Erich Kleinschmidt, "Konrad von Mure," in: *Die deutsche Literatur des Mittelalters. Verfasserlexikon* 5 (1985) 236-244 (lit.).

⁴² The *Novus Graecismus* of Konrad of Mure has not yet been edited; an edition is being prepared by Alexandru Cizek/Münster.

rial, it is possible to regard this dictionary as a kind of encyclopaedic *summa*. It is, however, a rather economical work without high claims, which completely suits the author's intentions: "wishing to serve the common utility of the young."⁴³ The impression of completeness does not result from a systematic and coherent conception; instead Konrad achieves it by collecting available information and joining together ideas and materials. Inconsistencies and discrepancies in the arrangement of information are therefore not due to the author's negligence but show his preference for the most easily-consulted, searchable and memorable parts. This again illustrates the specific function of the encyclopaedia and its use. The alphabetical arrangement, which had an immediate appeal to contemporary scholars, serves a very specific purpose: "When he has mastered this order, the reader will be able to find what he wants more easily with its help."⁴⁴ Let me only refer in passing to the research done by Richard and Mary Rouse and the programmatic title of their work: *Statim invenire*.⁴⁵

3. Monastic encyclopaedias

The tension between universal and particular knowledge is especially high in monastic encyclopaedias. Their authors at the same time want to provide a comprehensive representation of the world and serve the specific needs and demands of their monasteries. Two works of the twelfth century may illustrate this type of encyclopaedia, the *Liber floridus* by Lambert of St Omer and the *Hortus deliciarum* by Herrad of Hohenburg. Lambert's book has to be regarded as a "work in progress," as the subjects seem to follow one another without any clear reason as to their progression and it is difficult to get a clear and coherent conception of the work as a

⁴³ ... *communi parvulorum utilitati cupiens deservire*. Konrad of Mure, *Fabularius*, Prologue, in: Franz F. Bendel, "Konrad von Mure," in: *Mitteilungen des Instituts für Österreichische Geschichtsforschung* 30 (1909) 51-101, here citing 77. As for the animals cf. Konrad von Mure, *De naturis animalium*, ed. Árpád Peter Orbán (Heidelberg 1989). The geographical dictionary seems to be lost.

⁴⁴ *Hoc enim ordine habito et cognito lector id, quod desiderat, eo facilius poterit invenire*. Konrad of Mure, *Fabularius*, Prologue: see Bendel (as in n.43) 77.

⁴⁵ Richard H. and Mary A. Rouse, "Statim invenire. Schools, Preachers, and new Attitudes to the Page," in: *Renaissance and Renewal in the Twelfth Century*, ed. Robert L. Benson and Giles Constable (Oxford 1982) 201-225.

whole.⁴⁶ Therefore I shall focus on Herrad's work, even though the original manuscript is lost and the only available edition is a reconstruction of 1979.⁴⁷ Both writers give a framework to their compilations in which they explicitly refer to their own monasteries and both provide superb and expensive manuscripts that certainly did not serve everyday use. Whereas Herrad's manuscript is unique, Lambert's book was copied several times—an astonishing fact considering the condition of the work.

The close connection between Herrad's book and her monastery finds its expression in one of the illustrations: all of the sixty nuns and their abbess are depicted and named in a kind of final tableau.⁴⁸ Figuratively speaking the codex thus takes its place in the monastery where it is intended to be used. The first poem of 25 stanzas is a salutation to the whole convent and Herrad here gives an initial characterisation of the intended audience:⁴⁹

*Salve cohors virginum
Hohenburgensium
Albans quasi lilium
Amans Dei Filium.*

*Herrad devotissima
Tua fidelissima
Mater et ancillula
Cantat tibi cantica.*

"Hail, company of virgins of Hohenburg, white as a lily, loving the Son of God. Devout Herrad, your faithful mother and serving girl, sings you these songs."

There are indications of Herrad's intentions, of the *intentio aucto-*

⁴⁶ Lambert of St Omer, *Liber Floridus*. Autograph-Facs., ed. Albert Derolez (Ghent 1968); *Liber Floridus Colloquium*, ed. Albert Derolez (Ghent 1973); Albert Derolez, *Lambertus qui librum fecit. Een codicologische studie van de Liber Floridus-Autograaf* (Gent, Universiteitsbibliotheek, handschrift 92) (Brüssel 1978).

⁴⁷ Herrad of Hohenbourg, *Hortus deliciarum*, ed. Rosalie Green, Michael Evans, Christine Bischoff and Michael Curschmann, 2 vols. (London/Leiden 1979), vol. 1: Reconstruction, vol. 2: Commentary.

⁴⁸ Herrad of Hohenbourg, *Hortus deliciarum* (as in n.47) vol. 1, 345–346 (fol. 322v–323r).

⁴⁹ Herrad of Hohenbourg, *Hortus deliciarum* (as in n.47) vol. 1, 2 (fol. 1v).

ris, when she reminds the nuns as Christ's brides and wise virgins to dress themselves in the vestment of knowledge as a preparation for the coming of the bridegroom: *Et exornet faciem / mentis purgans aciem*. The book serves this purpose as it rescues knowledge from oblivion:

*Sit hic liber utilis
Tibi delectabilis
Et non cessesolvere
Hunc in tuo pectore,*

*Nec more strucineo
Surrepat oblivio
Et ne viam deseras
Antequam pervenias.*

"May this book be useful and delightful to you, and may you never cease contemplating it in your heart; may forgetfulness not creep up on you ostrich-like, and may you not leave the path before you have reached your destination."

The encyclopaedia itself describes the history of salvation from creation to the apocalypse, centering on Christ's life on earth and the works of the apostles. All encyclopaedic knowledge is integrated into this history: cosmology, meteorology, geography, microcosm, the sciences, the arts, the muses, the church, religious worship, institutions, social classes and ethics. Herrad herself refers to the wide range of her sources when she compares her work of compilation from spiritual and scientific sources to a bee's collection of honey for a new honeycomb. Like honey, all information serves as nourishment on the way to eternity: "I have assembled...this book entitled 'The Garden of Delights' from the flowers of sacred and philosophical writings, and...I have combined them into one bountiful honeycomb. Therefore in this book you should eagerly seek good food to refresh the tired spirit with dripping honey, so that...you may safely heal the transitory and possess the eternal."⁵⁰

⁵⁰ ...hunc librum qui intitulatur Hortus deliciarum ex diversis sacre et philosophice scripture floribus... comportavi et... quasi in unum mellifluum favum compaginavi. Quapropter in ipso libro oportet vos sedulo gratum querere pastum et mellitis stillicidiis animum reficere lassum, ut... transitoria secure percuratis et

The arrangement, contents and purpose of this encyclopaedia indicate an elaborate monastic concept of knowledge with special emphasis on the history of salvation, on cosmology and the sciences. Moreover it includes an account of ancient philosophy and—in a critical manner—of the poets. Above all, however, Herrad depicts an ideal image of nuns as Christ's brides when she characterises her work "to the praise and honour of Christ and the church, and for the sake of your delight," and she confidently considers her encyclopaedia an important book not only for her own *congregatio religiosa* but for the whole church as well.⁵¹

4. *Preachers' encyclopaedias*

A type of encyclopaedias which can easily be distinguished from other types is the so-called moralising encyclopaedias, or to use a term that better expresses their main function, preachers' encyclopaedias. These works became very popular in the late Middle Ages, as hundreds of manuscripts show. It is therefore surprising that only a few studies have so far focussed on these books and I can only sketch preliminary ideas.⁵²

This type of encyclopaedia again mirrors the tension between the writers' claim to present universal knowledge, and their specific intentions. Taking their origin from the natural encyclopaedias of the thirteenth century—among them Bartholomaeus Anglicus and Thomas of Cantimpré—these works are characterised by various correlations between things (*signifiantia*) and their meanings (*significata*) in the arrangement of knowledge. Different combinations of a systematic and an alphabetical order are notable features and seem to be useful for quickly finding the desired entries. Let me only mention the works of Mark of Orvieto, Henry of Schüttenhofen, John of San Gimignano and the *Reductorium morale* by Petrus Berchorius. John of San Gimignano makes use of two conceptions of the classification of knowledge. While he arranges the different books of his encyclopaedia according to a systematic order

eterna... possideatis. Herrad of Hohenbourg, *Hortus deliciarum* (as in n.47) vol. 1, 4 (fol 1v?).

⁵¹ ... *ad laudem et honorem Christi et Ecclesie, causaque dilectionis vestre*. Ibid.

⁵² Books on this subject are in preparation: Peter Binkley, Groningen/London (Canada); Baudouin van den Abeele, Louvain-la-Neuve; Heinz Meyer, Münster.

of things (*signifiantia*), he makes use of an alphabetical order of meaning (*significata*) in each of these books. There are other encyclopaedists who use the alphabet as the main structural principle for the *significata*, e.g. Jacobus of Lausanne in his *Tabula exemplorum*, John Bromyard, and also Berchorius in his *Repertorium morale*. In the thirteenth century *Liber septiformis de moralitatibus*, written by an unknown author, the alphabet serves for the overall classification of things; the meanings however are described in the articles, each *significatum* accompanying one property of the *significans* just treated.⁵³

The most significant and striking feature of these preachers' encyclopaedias is the large collection of biblical and religious *topoi*. They are thesauri of *copia rerum et allegoriarum* or *moralitatum* and were primarily used for the preparation of sermons, which may explain a strong tendency towards an alphabetical arrangement of knowledge. These works do not, however, serve only as source-books for preachers. The authors also write about social life in general as they expound morality and describe the different social classes and their way of life. Petrus Berchorius refers to both aspects—biblical *topoi* and social life—in the introduction to his *Reductorium morale*, where he characterises his encyclopaedia as a quarry of information or a well of knowledge for various purposes.⁵⁴

5. Medical encyclopaedias

Several times Latin encyclopaedias were adapted for medical purposes. Although there are indications of professionalisation, there are no medieval medical encyclopaedias in a strict sense. Two encyclopaedias illustrate this: the mid-twelfth-century *Physica* by Hildegard of Bingen and the late-fifteenth-century *Hortus sanitatis*. The reorganisation of medical knowledge was deeply influenced by the inclusion of Arabic encyclopaedias on natural sciences. These literary sources specifically focussed on the teaching of the ele-

⁵³ For the moralised encyclopedia, especially the *Liber septiformis de moralitatibus* I paraphrase Heinz Meyer, "Organisationsformen und Kompilationstechnik in der moralisierten Enzyklopädik" (paper read at Münster, January 1996).

⁵⁴ ... sic primum opus (sc. *Reductorium morale*) sit sicut lapicidina vel puteus ad materiam hauriendum. Petrus Berchorius, *Reductorium morale* (Köln 1731) 1b (Prologus).

ments and the different temperaments. Their influence is evident in twelfth- and thirteenth-century encyclopaedias that are not primarily medical ones, e.g. in the *Apex physicae* or in the works of Arnoldus Saxo,⁵⁵ Bartholomaeus Anglicus and Vincent of Beauvais. The reception history of Bartholomaeus' encyclopaedia shows on the one hand that physicians highly esteemed the outlines of medical knowledge that Bartholomaeus included in his descriptions of natural phenomena.⁵⁶ On the other hand Petrus Berchorius, who used Bartholomaeus' work for the compilation of his preachers' encyclopaedia, criticised these passages. Explaining his deletions and additions he wrote: "Note that this book, which I call *Morale Reductorium*, follows the order of the *Liber de proprietatibus rerum*... But there are some materials in the *Liber de proprietatibus* that I have presented very briefly, such as in the book on illnesses and the book on trees, from which I have extracted the more noteworthy things and left out what was more commonplace. There is much there that seemed to me to pertain more to the recipes of physicians than to the sayings of philosophers; therefore I have passed over them quickly."⁵⁷

It is possible to see the influence of Arabic encyclopaedias and their reception in Hildegard's mid-twelfth-century cosmological and pharmacological *summa*, the *Physica*, or, as her own booklist and the most reliable copies have it, the *Liber subtilitatum diver-*

⁵⁵ Cf. Marie-Odile Garrigues, "L'Apex physicae, une encyclopédie du XII^e siècle," in: *Mélanges de l'École française de Rome* 87,1 (1975) 303-337; Arnoldus Saxo, "Die Enzyklopädie," ed. Emil Stange, in: *Beilagen zum Jahresbericht des Königlichen Gymnasiums zu Erfurt* (Erfurt 1905ff.); Franz Josef Worstbrock, "Arnoldus Saxo," in: *Die deutsche Literatur des Mittelalters. Verfasserlexikon* 1 (1978) 485-488; a new edition is in preparation by Isabelle Draelants/Louvain-la-Neuve.

⁵⁶ Heinz Meyer, *Untersuchungen zur Überlieferungs- und Rezeptionsgeschichte von Bartholomäus Anglicus, De proprietatibus rerum* (München 1997) C. V 3b (in press).

⁵⁷ ... notandum est, quod istud... volumen, quod *Morale Reductorium* appello, ordinem libri de proprietatibus rerum sequitur... Aliquae etiam sunt in libro de proprietatibus materiae, quas valde succincte posui, sicut est liber de infirmitatibus, et liber de arboribus, de quibus notabilia extraxi, magis vero communia dereliqui. Multa enim sunt ibi, quae magis visa sunt mihi pertinere ad recepta medicorum, quam ad dicta Philosophorum; quapropter de istis me breviter expediivi. Petrus Berchorius, *Reductorium morale* (as in n.54) 2a.

sarum naturarum creaturarum.⁵⁸ Like an encyclopaedia, this work presents an outline of the elements and the classifications of the natural world: there are separate books on plants, trees, stones, metals, fishes, birds, animals and reptiles. In the prefaces to each of these books Hildegard explains the theological and cosmological basis of her medical and natural science: all species of organic and inorganic life take their origin from God and his work of creation, and it is this work of creation that assigns them their place and purpose in the world. The encyclopaedia thus provides a comprehensive and coherent overview of the system of the world and it illustrates the interdependence of macrocosm and microcosm by tracing their origin to the act of creation.

The *Hortus sanitatis* (1491) of Jacob of Meydenbach, a printer in Mainz, is unique in that it illustrates the change and development of an originally medical treatise into an encyclopaedia that still deals with medicine but takes into account other fields of knowledge as well. The conception and structure of this book are very different from the earlier works, the *Gart der Gesundheit* and the *Herbarius Moguntinus*, as it reverts to the common knowledge and structural principles typical of high-medieval encyclopaedias. The author does not arrange the *simplicia* according to medical aspects or illnesses. Instead, he divides his work into five *tractatus* according to the four elements and relates all inanimate things and animate beings as well as the mixture of temperaments to them: "The first [treatise] deals with plants and other things that go with the practice of medicine. There you will find accurate pictures of plants. The second concerns the natures and complexions of many animals that live on land. The third deals with birds and their natures. The fourth concerns fish and their properties and natures. The fifth concerns precious stones and their virtues." This transformation is not accidental: throughout the prologue and in the introductions to the separate books the writer repeatedly refers to the

⁵⁸ Hildegardis Bingensis, *Physica* (PL 197, 1117-1352); further research has to be done in this field after the recent discovery of previously unknown manuscripts; cf. Irmgard Müller, "Zur Verfasserfrage der medizinisch-naturwissenschaftlichen Schriften Hildegards von Bingen," in: *Tiefe des Gotteswissens—Schönheit der Sprachgestalt bei Hildegard von Bingen*, ed. Margot Schmidt (Stuttgart/Bad Cannstatt 1995) 1-17.

origin in God and his work of creation.⁵⁹

6. *An economic encyclopaedia* vs. 7. *A university encyclopaedia*

It is only in the late sixteenth century that encyclopaedists began to deal mainly with trade and economics. A German vernacular encyclopaedia, the *Cyclopaedia Paracelsica Christiana* (1585) by Samuel Siderocrates, illustrates a significant transformation of the medieval systems of *ordo rerum* and *ordo artium*, even though there are still many references to these systems. With regard to the author's intention this encyclopaedia has recently been characterised as an "anti-humanist pamphlet."⁶⁰

Siderocrates' intention to serve the middles classes' need for practical knowledge finds its expression in an explicit didactic approach and the use of the vernacular instead of Latin. Combining the Aristotelian system with the *artes liberales*, the three books describe in a seemingly old-fashioned way the arts, physics and metaphysics (theory). Their purpose, however, is just the opposite: the three books can be regarded as a polemical attack on traditional systems of the classification and arrangement of knowledge. The first book deals with the *trivium* in chapters on "letters," "writing," "books," "rhetoric" and "tongues and languages" and with the mathematical *quadrivium* in chapters on "numbers," "measures," and "stars." In contrast to the ideal of humanist Latin teaching, Siderocrates draws up a didactic curriculum for traders and mer-

⁵⁹ *Primus [tractatus] itaque tractat de herbis ceterisque que ad usum medicine concurrunt. In quo etiam herbarum aptas figuras comperies. Secundus de natura complexioneque multorum animalium vitam in terris ducentium. Tertius de avibus earumque naturis. Quartus de piscibus earumque proprietatibus et naturis. Quintus de lapidibus preciosis eorumque virtutibus.* Christel Meier, "Der Hortus sanitatis als enzyklopädisches Buch. Zur Pragmatisierung traditionellen Wissens und ihrer Realisierung in der Illustration," in: *Alles was Recht war. Rechtsliteratur und literarisches Recht. Festschrift für Ruth Schmidt-Wiegand* (Düsseldorf 1996) 191-200, here citing 192f. Gundolf Keil, "Hortus sanitatis," in: *Die deutsche Literatur des Mittelalters. Verfasserlexikon* 4 (1983) 154-164. For the quotation see: *Ortus sanitatis*, ed. Bernardinus Benalius and Johannes Tacuinus, 2 vols. (Venice 1511; reprint Würzburg 1978) 1 "Prohemium."

⁶⁰ Samuel Siderocrates (Eisenmenger), *Cyclopaedia Paracelsica Christiana. Drey Bücher von dem waren ursprung und herkommen der freyen Künsten, auch der Physiognomia, obern Wunderwercken unn Witterungen* (Straßburg 1585); see Rhein, "Die *Cyclopaedia Paracelsica Christiana*" (as in n.39).

chants and depicts an "image of the German merchant" ("Ebenbild von den Teutschenkauffleuten").⁶¹ He therefore no longer regards the *artes* model as an irrefutable norm but takes a very pragmatic approach to knowledge, which in the end destroys the traditional system. The first book, for example, contains advice on the teaching of languages for foreign trade and the international financial market "ohn alle Grammatica, Dialectica und Poeterey," i.e. without any grammar, dialectics or poetry. The same pragmatic approach characterises the second book on natural sciences and medicine, which takes the Bible and Paracelsus as its main authorities. This book was written primarily for physicians and apothecaries, and the author develops a rather pragmatic idea of their professions when he emphasises the necessity of practical knowledge instead of special medical studies.

Taking into account the numerous explicit addresses to specific groups of readers, it is possible to characterise Siderocrates' main audience. The passage on the necessity of teaching vernacular languages addresses "fathers, guardians and fosterfathers"; the advice to deal honestly with money explicitly refers to "priests, trustees, teachers, lawyers, magistrates, fathers, preachers..."; and in his advice on honest measures Siderocrates addresses various professions: "You teachers," "You merchants," "You tailors," "You bricklayers."⁶² Stefan Rhein concludes that the intended audience of this encyclopaedia does not belong to humanist and academic circles at university but is part of an educated working middle class. They are people who entered into a tough competition with the academic professions, as they considered academic barriers to special professions in the arts, medicine or religion to be restrictive and demanded their abolition. "[Greuliche Gotteslästerung ist,] daß derselbe zu solcher Meysterschafft keineswegs zugelassen würdet, Er könne dann seine Kunst und H. Schrift auß dem narrechten Aristotele verthädigen, die Artzney auß des unberündten Galeni bescheisserey verfechten unn die freye Künst mit heydnischer So-

⁶¹ Siderocrates, *Cyclopaedia* (as in n.60) I 14ff. ("Zungen und Sprachen"); Rhein, "Die *Cyclopaedia*" (as in n.39) 87f.

⁶² Siderocrates, *Cyclopaedia* (as in n.60) I 15ff., 57f.; cf. Rhein, "Die *Cyclopaedia*" (as in n.39) 95f.

phisterey verblümlen.”⁶³ To be even more precise, the readership may be characterised as comprising the skilled craftsmen, scribes, mathematicians, apothecaries and those in the non-academic medical professions such as barbers, village quacks and surgeons: in sum, professions situated between the illiterate manual workers and the humanist academics.⁶⁴

By means of re-interpretations, reductions and substitutions of traditional university teachings and an adaptation of the concept of the six days of creation, Siderocrates changes the traditional conception of the arrangement of knowledge in such a way that his encyclopaedia serves the particular needs and demands of his reading public. Comparing the *Cyclopaedia* to the *Margarita philosophica* written about 1490 by Gregor Reisch⁶⁵ it is obvious that Siderocrates vehemently opposes the traditional academic encyclopaedia. Reisch, who taught as a Magister Artium at Freiburg university, also deals with the seven liberal arts, the *philosophia naturalis*, medicine and theology—yet he writes in Latin and for academic purposes. His book was an instant success and was widely used in sixteenth-century university teaching. The organising principle is the Aristotelian concept of scientific and natural knowledge,⁶⁶ a concept that Siderocrates not only opposes but ridicules in trenchant phrases such as “wider ihren abgott Narristotelem.”⁶⁷

8. Domestic encyclopaedias

There are also encyclopaedias written for the demands and needs of the private household which played a prominent part in medieval social and cultural life. The prolific information provided in these books is not systematically arranged. The encyclopaedias focus on the special needs of the *oikos* and deal with topics such as the hierarchical order of the household, the rights and duties of its members, as well as horticulture, the keeping of animals, insect control,

⁶³ Siderocrates, *Cyclopaedia* (as in n.60) I Bl. A3r/v; cf. Rhein, “Die *Cyclopaedia*” (as in n.39) 96f.

⁶⁴ Rhein, “Die *Cyclopaedia*” (as in n.39) 96f.

⁶⁵ Cf. n.36.

⁶⁶ Cf. n.37; see also Gustav Münzel, “Der Kartäuserprior Gregor Reisch und die *Margarita philosophica*,” *Zeitschrift des Freiburger Geschichtsvereins* 48 (1938) 1-87, here citing 48ff.

⁶⁷ Siderocrates, *Cyclopaedia* (as in n.60) “Drittes Buch. Vorrede,” p. II.

cooking, hunting, medicine, ethics, religious worship, the arts, poetry, history, cosmology, meteorology etc.⁶⁸ A good example is the early-sixteenth-century *Bayerische Bild-Enzyklopädie*.⁶⁹

In its restriction to the needs and demands of the household, this type of encyclopaedia resembles the monastic encyclopaedia; the arrangement of knowledge, however, shows a similarity to the economic encyclopaedia. Whereas writers of household treatises (*oeconomica*)—due to their origin in classical Greek and Latin literature—stick to strict rules as regards contents, methods and theory, the authors of domestic encyclopaedias take a more liberal attitude toward the selection and arrangement of knowledge. It is the inclusion of cosmology, history and general knowledge that turns the simple private household book into an encyclopaedia. Like Lambert's monastic encyclopaedia the *Bayerische Bild-Enzyklopädie* is a "work in progress," as there are several later additions to the rubricated codex.⁷⁰ There is still much research to be done on this type of encyclopaedia.

I have sketched the adaptation of universal encyclopaedic knowledge to the specific needs and demands of different audiences in the compilation of medieval encyclopaedias. One could go a step further and have a close look at the manuscripts themselves, since they often show traces of the use readers made of these works; I cannot, however, go into detail here.⁷¹

⁶⁸ *Oeconomica*: see Otto Brunner, *Neue Wege der Verfassungs- und Sozialgeschichte* (Göttingen 1968) 103ff. C.VI "Das ganze Haus und die alteuropäische Ökonomik"; Margarete Zimmermann, *Vom Hausbuch zur Novelle. Didaktische und erzählende Prosa im Frankreich des späten Mittelalters* (Düsseldorf 1989) 4ff.; Bernhard Schnell, "Das Hausbuch als Überlieferungsträger. Zu Michael de Leone und zum *Iatromathematischen Hausbuch*," in: *Würzburger Fachprosa-Studien. Michael Holler zum 60. Geburtstag*, ed. Gundolf Keil (Würzburg 1995) 118-133.

⁶⁹ Ewa Chojecka, *Bayerische Bild-Enzyklopädie. Das Weltbild eines wissenschaftlich-magischen Hausbuchs aus dem frühen 16. Jahrhundert* (Baden-Baden 1982).

⁷⁰ Chojecka, *Bayerische Bild-Enzyklopädie* (as in n.69).

⁷¹ The use of a medieval encyclopaedia in its reception history has been explored by Heinz Meyer in the case of Bartholomaeus Anglicus (as in n.56); see also Michael W. Twomey in this volume.

FINIS: THE GENERAL ENCYCLOPAEDIA

Not all medieval encyclopaedias were written for particular needs and purposes or for a specific audience. There are works that do not indicate any intended audience, and some encyclopaedists give explicit reasons for this. I would count among such works the early encyclopaedias written by Isidore and Hrabanus as well as the works of Honorius Augustodunensis, Bartholomaeus Anglicus and Vincent of Beauvais. Isidore wrote for the Christian population of Spain, and Hrabanus for the king and the clergy of the Carolingian Empire, as his dedications to Ludwig the German as *rex sapiens* and new Solomon and to the archbishop of Mainz indicate.⁷² Vincent programmatically explains the various functions of his encyclopaedia: not only does knowledge lead to a better understanding of God and his work of creation, there is practical advice on how to lead a good life, how to preach, how to read literary texts and how to behave in academic disputes; and there are explanations of all kinds of general phenomena. His work may be used “for preaching, for lecturing, for resolving questions, and generally for explaining almost any sort of matter from every art.”⁷³

⁷² Hrabanus Maurus, *De rerum naturis* (as in n.7) 9-14.

⁷³ ...*ad predicandum, ad legendum, ad solvendum, nec non et generaliter ad unumquodque fere materie genus artis cuiuslibet explicandum*. Vincent of Beauvais, “*Libellus apologeticus*” (as in n.32) 118. For help with the translation of this article I wish to thank Thomas Kestermann, Mark Stansbury and Peter Binkley.

THE ORGANISATION OF MATERIAL IN GRAECO-ROMAN WORLD HISTORIES

CATHERINE RUBINCAM

The modern encyclopedia has evolved from works vastly different from those which are now called encyclopedias, and ... has gone through many modifications.¹

So begins the article on "encyclopaedias" in a modern electronic specimen of the genre. This compact article, compressed onto a light and portable disk fed into a micro-computer, and easily accessed by the click of a button, carries within it a demonstration of the truth of this statement. In a bare six pages, easily printed out for handier consultation, it surveys the history of the encyclopaedia, starting with Speusippus' compilation of Plato's lectures in the fourth century B.C., pausing to pay tribute to Pliny's *Historia naturalis* as "the earliest truly encyclopedic work," and proceeding to summarise the main stages in the later evolution of the genre: medieval works written in Latin for a scholarly audience; late medieval works, still in manuscript form, but in the vernacular; dictionary-format printed encyclopaedias, beginning in the sixteenth century; the eighteenth-century French *Encyclopédie*, a manifesto of progressive and sceptical thought; and the notable landmarks in the more recent evolution of the genre—the *Encyclopaedia Britannica*, various examples of the German *Konversations-Lexikon*, the French *Larousse*, the *Encyclopedia Americana*. The article closes with some observations on the revolutionary effects of "advanced communications technologies" on the production of encyclopaedias and on their "versatility and accessibility."

The variety and scope of such a survey amply confirm the wisdom of the decision taken by the organisers of this congress to "treat encyclopaedic literature as a paradigm, in which texts can participate to a greater or lesser degree, rather than a prescriptively defined genre."² I take it as self-evident that encyclopaedic litera-

¹ *The 1995 Grolier Encyclopedia on CD-ROM.*

² Quotation from the congress call for papers. Many contributors to this congress have attempted to circumscribe that paradigm. The complexity of their argu-

ture is designed in some sense to store knowledge, in a form in which it will be accessible to some class of readers wider than the group that participated in its compilation. These two elements, the collection of knowledge embracing every possible subject and its organisation for an exoteric purpose, can be found not only in works called "encyclopaedias," but also in many others that participate in the encyclopaedic paradigm.³

The *Natural History* of Pliny the Elder, published in the 70s A.D., is the work habitually pointed out in the corpus of Graeco-Roman literature as most obviously encyclopaedic.⁴ But many other works from that cultural tradition could be said to participate no less in any paradigm of encyclopaedic literature. On the one hand, enormous research projects like that of Aristotle and his school were encyclopaedic in their scope and organisational sophistication.⁵ On the other, the innumerable lesser men who wrote works which aimed to condense existing knowledge within one or more fields shared in an encyclopaedic purpose: they compiled knowledge into a form that would be more easily consulted by an ordinary member of the literate public than the longer and more specialised works of the greatest experts.

History has become a standard constituent of modern general encyclopaedias, and has generated some more specialised modern encyclopaedic works.⁶ The genre of encyclopaedic history can be traced back to the ancient world. Graeco-Roman tradition came to distinguish between more specialised works (histories of a single city-state, or a single war, or a single powerful individual's career) and works of more general scope. "World history" as a genre was said to have been invented by the fourth-century B.C. Greek historian Ephorus of Cyme, who compressed into thirty bookrolls a his-

ments clearly demonstrates the difficulty of this task.

³ On the origin of the term "encyclopaedia," which seems to be a coinage of the early Renaissance period, see the remarks of Robert Fowler, 27-29 above.

⁴ The *Historia naturalis* was "the earliest truly encyclopaedic work" (1995 *Grolier Encyclopedia*); Pliny was "le plus célèbre 'encyclopédiste' de Rome" (P. Grimal, "Encyclopédies antiques," *CHM* 9 (1966) 459-482, at 477).

⁵ See, for example, the comments of P. Grimal (as in n.4) 460.

⁶ E.g., Will Durant's *Story of Civilization* (New York 1935-1975), an 11-volume survey of the main developments in Western Civilization from Ancient Greece to the death of Napoleon.

tory of the Greek states and other peoples who had significantly impinged on the Greeks, starting from the return of the sons of Herakles (conventionally dated in the eleventh century B.C.).⁷ A succession of later Greek writers continued the tradition of trying to deal comprehensively with all the significant events occurring in an ever-expanding world within a certain era. But wide as their geographical scope might be, they did not for the most part produce new condensations of earlier Greek history.

In the first century B.C. "world histories" of comprehensive scope both geographically and chronologically, but in more summary form, were written in Greek by Diodorus, a Greek-speaking Sicilian, and in Latin by Pompeius Trogus, a Romanised Gaul. Their works ran to 40 and 44 bookrolls respectively—not exactly small, but relatively much more succinct than (e.g.) the almost contemporary world history of Nicolaus of Damascus, which ran to 144 books. Diodorus' statement of purpose (1.3-4) places him squarely in the encyclopaedic vein: he explains that he considers it important to write the history of the whole world from the sack of Troy to his own lifetime in somewhat compressed form, and even to supply a summary account of myths, both Greek and non-Greek, so as to give his readers access to the largest possible collection of examples of virtue and vice without their having to bother perusing a whole series of more specialised historical works.⁸

How do these Graeco-Roman encyclopaedic histories cope with the problem of organising their contents so as to facilitate access by their readers? The technology of manuscript publication on rolls of papyrus made it difficult to consult rather than peruse encyclopaedic works. Papyrus rolls were bulky and cumbersome to use. Ephorus, in addition to inventing world history, was also the first prose writer to choose the number of rolls among which he wished to apportion his text, and write those divisions into the text by the insertion of a preface to each bookroll.⁹ Thus every copy of Epho-

⁷ On Ephorus, see C.W. Fornara, *The Nature of History in Ancient Greece and Rome* (Berkeley 1983) 42-46.

⁸ See also Diodorus 4.1 for a fuller justification of the inclusion of myths in his work.

⁹ Diod. 16.76.5 reports that Ephorus attached a *prooimion* to each book. G. L. Barber, *The Historian Ephorus* (Cambridge 1935) 68-74 presents evidence regarding prefaces in Hellenistic historiography.

rus' world history made the same book divisions. This appears to have become standard practice among subsequent authors. Within each bookroll, however, there could not be absolute uniformity in how a prose text was divided into columns.¹⁰ Furthermore, the only place in the roll where anything like an index could be placed for rapid consultation was at either end, where a minimum of unrolling would bring it into view. The result was that the text had a strongly linear form, which demanded to be read in sequence, and cross-reference from one part to another could be made only in the crudest and most general way by means of book numbers or large subject areas, whose location within the whole composition might be found by means of the tables of contents and summaries placed at the opening of each bookroll.¹¹

Several questions suggest themselves: (1) how is the text organised? (2) how far is the internal organisation influenced by the nature and format of the works used as principal sources by the encyclopaedic writer? (3) how does the author attempt to facilitate reference between different parts of the text?

The *Bibliotheca Historica* of Diodorus will be my primary example of a Graeco-Roman encyclopaedic history. It consists of 40 bookrolls—a division imposed by the author, following the example of Ephorus mentioned above, by means of prefaces inserted at the beginning of each book, which summarise the contents of the book to come, and often discuss matters of historiographical practice or

¹⁰ On the form of the ancient papyrus roll, see L.D. Reynolds and N.G. Wilson, *Scribes and Scholars*, 2nd ed. (Oxford 1974) 2-3. E.G. Turner, *Greek Manuscripts of the Ancient World* (Oxford 1971) presents photographs of about 60 ancient Greek manuscript texts, most of them on papyrus rolls, which well illustrate the enormous variations possible in handwriting styles and formats of ancient bookrolls. See also W. Schubart, *Das Buch bei den Griechen und Römern*, 2nd ed. (Berlin and Leipzig 1921) chap. 2.

¹¹ I emphasise here the gulf that separates late-twentieth-century researchers, who can manipulate information by computer, from their ancient counterparts. The slow evolution of the technology of writing and publication—through manuscript codices to printed books—has encouraged the gradual refinement of the tools by which texts can be consulted rather than perused. Some of the stages in this process are illuminated in two papers by M. A. Rouse and R. H. Rouse, "Statim invenire: Schools, Preachers and New Attitudes to the Page," in *idem*, *Authentic Witness: approaches to Medieval Text and Manuscripts* (Notre Dame 1991) 191-219 and "The Development of Research Tools in the Thirteenth Century," *ibid.*, 221-255.

themes relating to that stretch of history.¹² The author's general preface (1.5) sets out some major internal divisions, most notably that between the first six books and the remaining 34. Book 7 marks the boundary between myth and history, which is identified with the fall of Troy. Within the first six books 1-3 focus on barbarian peoples, 4-6 on Greeks. In fact, of course, the choice of the fall of Troy as the boundary between myth and history makes sense only in terms of the record of Greek history—Ephorus, the historian to whom he looked back as the inventor of world history, excluded earlier events from his work altogether as unhistorical.¹³ The whole of Diodorus' narrative was entirely hellenocentric, and conditioned by the fact that "history" as a genre had been created by Greeks. The affairs of other nationalities became historical only at the point where they first claimed the attention of Greek historical writers. This point of transition from the prehistoric to the historic state varied from one people to another. For Egypt, a country whose history had become intertwined with the Greeks when it was incorporated into the Persian Empire, Diodorus gives a detailed account of the mythology and customs, as well as a summary of the main points of its history down to the date of the Persian conquest, c. 525 B.C. On the other hand, a people like the Gauls had only recently, in Diodorus' own lifetime, become possible subjects for history, as a result of the conquests of Julius Caesar, while still other areas, such as Arabia, had yet to achieve that status.¹⁴

In book 7 began the continuous narrative of historical events from the fall of Troy. How was this organised? From at least the mid-eighth century Diodorus devised a chronological framework in which each year's events were introduced with the names of the archon at Athens and the consuls at Rome, the numbered series of Olympic festivals being integrated into this annalistic sequence. This chronological framework was obviously appropriate to an author working within the Greek historiographical tradition while

¹² K.S. Sacks, *Diodorus Siculus and the first Century* (Princeton 1990) describes and discusses the *Bibliotheca* and supplies a comprehensive bibliography. Chapter 1 discusses the prefaces.

¹³ Cf. Diod. 1.4 and 4.1.

¹⁴ C. Rubincam, "The Organization and Composition of Diodorus' *Bibliotheca*," *EMC/CV* n.s. 6 (1987) 313-328, esp. 315-316, examines this aspect of the organisation of Diodorus' work.

living under the government of the Roman Empire. Within each year's section of narrative, Diodorus divided events by geographical theatres, giving the most space to the most eventful part of the Greek world, and expanding the purview of the narrative gradually to include other parts of the Mediterranean world that came into contact with Greeks.¹⁵

Thus the organisation of Diodorus' encyclopaedic world history shows clearly in two major respects its dependence on the preceding tradition of Graeco-Roman historiography. First, the inclusion of indigenous historical narrative relating to non-Greek peoples within the supposedly mythological sections of his work (books 1-3) reflects earlier Greek historians' failure to push the boundary of their historical narratives concerning each people farther back than the point at which their affairs became mixed with the narrative of Greek affairs. Second, the internal organisation of Diodorus' main historical narrative from the eighth century B.C. on reflects the impossibility of imposing retroactively an accurate annalistic scheme on a narrative woven together from accounts not originally composed on this basis. Diodorus has been much criticised for the shortcomings of his work. The two major failures mentioned here, however, were due to factors inherent in the Graeco-Roman historiographical tradition. It was impossible for anyone in the first century B.C., however learned, to compose a history of the whole Mediterranean world during the preceding millennium in which all areas were equally represented, and in which every event was accurately dated to the precise year of its occurrence.

Given Diodorus' stated claim that his encyclopaedic work would make it easier for readers to survey a large stretch of history than they would have found it to consult separately each of the more specialised works that he drew upon, what steps did he take to overcome the difficulty of referring to, rather than reading right through, an encyclopaedic work? First, he inserted at appropriate points notices explaining the internal organisational scheme of his work. Thus he adopted Ephorus' practice of writing the divisions

¹⁵ This annalistic chronological framework runs throughout books 11-20 of the *Bibliotheca*, which are extant in their entirety. The very imperfect preservation of books 7-10 makes it impossible to be certain where this chronological system began, but a date in the mid-eighth century seems most likely.

between the bookrolls into his text by means of a preface inserted at the beginning of each. He also set out in his general preface (1.5) the organisational scheme of the whole work: the first six books to be devoted to archaeology/mythology (1-3 of non-Greeks, 4-6 of Greeks); the next eleven (7-17) to carry the main narrative of world history from the fall of Troy to the death of Alexander the Great; the following twenty-three (18-40) to continue it down to the time of Julius Caesar. In addition, he included in the preface to each book a summary table of contents, which a reader could consult by unrolling just the opening part of each roll. A second means of making his work more "user-friendly" was his use of cross-references to direct the reader from one section to another.

Modern readers take cross-references for granted as one of the battery of tools (along with footnotes, running heads, chapter and section titles, classified indexes, visual formatting by means of different typefaces and selective spacing) that facilitate non-linear consultation (as opposed to continuous reading) of texts. But the use of all of these tools has developed gradually throughout the history of book production,¹⁶ and it is important to consider Diodorus' practice against the context of his own time. We expect cross-references within a written prose text to be very precise, using page or footnote numbers. Such precision was impossible before the advent of the printed book, in which a precisely numbered page represented an unchanging unit in a particular edition of a certain text. (The obvious exception to this generalisation is the Bible, for which the need to be able to cite specific passages provided the incentive to impose an unchanging system of internal division of the text into numbered chapters and verses.)¹⁷ For most Graeco-Roman prose texts, the smallest constant unit was the bookroll. This meant that cross-references tended to be very general and imprecise: e.g., "I have dealt with this matter earlier," or "I shall deal with this later." Such studies as have been done of the practice of Graeco-Roman authors¹⁸ show that few go much be-

¹⁶ See the articles cited above, n.11.

¹⁷ In fact, the now standard scheme of unchanging internal chapter divisions in the biblical text was adopted only c. 1200 A.D.: see B. Smalley, *The Study of the Bible in the Middle Ages*, 2nd ed. (Oxford 1952) 222-224.

¹⁸ R. J. Starr, "Cross-references in Roman Prose," *AJP* 102 (1981) 431-347,

yond that level of precision, and most cross-references refer only short distances forward or backward within the text. A major exception is Pliny's *Natural History*, which uses cross-references much more frequently, more precisely, and over longer stretches of the text than other works that have been studied.¹⁹ Diodorus' practice resembles that of Pliny, and it is significant, I think, that he uses cross-references most frequently in the first six books of the *Bibliotheca*, where his principles of organisation were not self-evident, so that a reader required more signposts for internal guidance.²⁰

I have used Diodorus' *Bibliotheca* as my primary example of a Graeco-Roman encyclopaedic history, partly because this work has been most extensively analysed in terms of its organisation, and partly because it is the only example from that early period of which we have a substantial portion of the complete text. The obviously analogous *Philippic Histories* of Pompeius Trogus were composed also in the mid- to late first century B.C., but probably published slightly later than Diodorus' work. Of Trogus' work, however, we have in his own words only the prefaces to the separate books. Otherwise, it is known only through the condensation done by Justin in the late third century or later. This provides a sufficient basis for a discussion of the general internal organisation of the whole work, but not for an investigation of cross-references.²¹

It is clear that Trogus' plan differed in some significant ways from Diodorus'. He made no explicit internal division between mythology and history proper, and he organised his whole work as a history of the successive empires that preceded and led inevitably to Rome's domination of the known world. Thus he begins with the ascendancy of Ninus and Semiramis, the semi-mythical Assyrian monarchs, and ends with the subjugation of north-western Spain by

sets out the results of a survey of the practice of cross-references by eight Roman authors writing between the mid-first century B.C. and the early second century A.D. C. Rubincam, "Cross-references in the *Bibliothèque Historique* of Diodoros," *Phoenix* 43 (1989) 39-61, describes Diodorus' practice and compares it to those of the Roman authors studied by Starr.

¹⁹ Starr, "Cross-references" (as in n.18) 433 and 436.

²⁰ Rubincam, "Cross-references" (as in n.18) 51.

²¹ A recent summary discussion of Justin's epitome of Trogus' *Philippic Histories* is given in the introduction to J.C. Yardley (tr.) and R. Develin (ed.), *Marcus Junianus Justinus' Historiae Philippicae* (Atlanta 1994).

the armies of Augustus. His chronological system appears to be somewhat fluid and lacking in specific dates (although in this respect we cannot necessarily trust Justin's epitome to reflect Trogus' practice). At any rate, he certainly avoided the difficulties Diodorus caused for himself by trying to impose annalistic precision on events that had not been recorded annalistically. Trogus' system apparently resembled Ephorus' organisation by geographical theatres, which was much better suited to encyclopaedic world history than Diodorus' annalistic scheme.

I have been emphasising the strongly linear form of these two examples of encyclopaedic history from the Graeco-Roman world. Similarly organised works of encyclopaedic history continue to be produced in modern times. Will Durant's 11-volume *Story of Civilization*²² furnishes an interesting modern analogy for Diodorus' *Bibliotheca* in several respects. Parts of Durant's prefatory statement of intent sound remarkably like that of the *Bibliotheca*. Like Diodorus, he admits that the task he has undertaken is "an absurd ... enterprise, ... immodest in its very conception" (I.vii). Like Diodorus again, he expresses frustration at the magnitude of his task: "Many years of effort have brought it to but a fifth of its completion, and have made it clear that no one mind, and no single lifetime can adequately compass this task" (I.vii). Like Diodorus, he parades an awareness of "the many errors inevitable in this undertaking," while expressing the hope that "it may be of some use to those upon whom the passion for philosophy has laid the compulsion to try to see things whole" (I.vii). And like Diodorus, he argues passionately for a more unified approach to the writing of history.²³

As for the organisation of his grand design, he aimed to summarise the major achievements of European Civilisation, just as Diodorus' focus remained on the development of Greek history, which eventually became absorbed into or absorbed the affairs of the Romans. And just as Diodorus found it easier to segregate the prehistory of those on the fringes of the Graeco-Roman world in the first three books, so Durant prefaced to his main narrative a summary account of the main achievements of the other civilisations tradi-

²² As in n.6.

²³ Diodoran parallels for these sentiments are found in the general preface (1.3-5).

tionally admired by Europeans: his first volume is entitled "Our Oriental Heritage," which the subtitle explains as "being a history of Civilization in Egypt and the Near East to the death of Alexander, and in India, China and Japan from the beginning to our own day." This organisational scheme assumes that the streams of achievement of the old Egyptian and Near Eastern civilisations flow into that of the Graeco-Roman world through the conquests of Alexander, whereas the civilisations of India, China, and Japan have remained essentially separate from European Civilization until the modern era. In terms of internal organisation and signposting, of course, Durant had a much easier time than Diodorus, since he had at his disposal the whole arsenal of tools mentioned above (constant page numbering, indexes, different typefaces, etc.). He also did a much more thorough job of reworking his source material into a better integrated narrative. But these differences are due in part to the different standards of the twentieth century A.D. and the first century B.C.

To sum up, even though the name "Encyclopaedia" is an early Renaissance creation, examples of encyclopaedic works can be found from the earlier Graeco-Roman world. In searching for such "proto-encyclopaedias," however, scholars should look further than such obviously encyclopaedic collections of assorted information as Pliny's *Natural History*. Other works, such as the summary "world histories" of Diodorus and Pompeius Trogus, composed in the first century B.C., deserve to be treated as partaking in the encyclopaedic paradigm in respect of both scope and purpose. Their continuous narrative form was determined largely by the necessarily linear form of the papyrus roll, the book-making technology of that era. The organisational structure of both works was largely conditioned by the sources they drew on, but Diodorus at least showed some attempt to meet readers' needs to consult, rather than peruse, his work. In particular, Diodorus' use of cross-references has much in common with that of Pliny. The writing of book divisions into the text, the appending of tables of contents to the whole work and to each separate bookroll, and the use of cross-references represent the rudimentary beginnings of the formal tools which facilitate the finding of particular pieces of information within a large encyclopaedic collection.

COSMIC CORRESPONDENCES: SONGS AS A STARTING POINT FOR AN ENCYCLOPAEDIC PORTRAYAL OF CULTURE

HILARY KILPATRICK

It is commonly agreed that the most valuable single source for pre-Islamic and early Islamic Arabic poetry, history, culture and musical life is Abū l-Faraj al-Iṣbahānī's (897-c.973 A.D.)¹ *Kitāb al-aghānī* (*Book of Songs*), which sometimes has the word *al-kabīr* (*Great*) added to the title. The book's importance for music and poetry can easily be imagined, as can the fact that it is regarded as belonging to the genre of *belles-lettres*. But why should a collection of songs turn into an encyclopaedic presentation of culture?

This paper proposes to answer the question in three steps. First, I will give a thumbnail sketch of the *Kitāb al-aghānī*'s contents and organisation. Secondly, I will discuss the place of music in medieval Arabic culture and some ideas about it. In conclusion I will suggest how these attitudes to music may explain Abū l-Faraj's making a "musical encyclopaedia" of culture.

Songs are the starting point of the *Aghānī*. First the text (usually two or three lines of poetry) and setting of a song are given, together with the authors of the words and music, in other words the poet and the composer.² Then Abū l-Faraj gives information linked to the song and its authors, employing the conventions of medieval Islamic historical writing; the separate reports (*akhbār*) are introduced by the chain of authorities who transmitted them or by an indication of a written source.

Each introductory song is thus followed by two sections (or by one if either the poet or the composer has been treated elsewhere),

¹ For Abū l-Faraj's life see *Encyclopaedia of Islam*, 2nd ed. (Leiden, 1960-) s.v. (M. Nallino). For the date of his death I follow Ibn al-Nadīm, who knew him personally; Ibn al-Nadīm, *Kitāb al-fihrist* (ed. Riḍā Tajaddud, 3rd ed., Beirut 1988) 127.

² One term, *mughannī*, derived from the verb *ghanna*, "to sing," is used to denote not only "singer," but also "composer" and "musician," performers as a rule possessing all three skills.

for which I will use the term "articles." Most articles consist of a biographical presentation, in the loosest sense of the term, of the person concerned. But a few focus on other kinds of subjects: a relationship, generally of love, between two people; a political event, such as a battle, an uprising or the execution of a prominent figure; or a song and its history. In this last case the introductory song reappears in all the subsequent *akhbār*. Standard themes of the biographical articles include the subject's family background, artistic education, contacts with colleagues and patrons, and salient traits of character, in addition to critics' evaluations of his literary or musical achievements, quotations of his other memorable poems or song settings, and, where appropriate, accounts of important events in which he played a significant role.

The *Aghāni* has three parts. In the first, which, as Abū l-Faraj explains in his preface,³ was the starting point for the undertaking, he treats the Top Hundred songs selected for the Caliph al-Wāthiq (reg. 842-847 A.D.) by the great musician Ishāq al-Mawṣili; this selection is said to have been a revised version of the one which Ishāq's father Ibrāhīm and two other court musicians prepared for Hārūn al-Rashīd (reg. 786-809 A.D.).⁴ This first part concludes with a similar treatment of a few other small collections of memorable songs. In the third part, the introductory songs are Abū l-Faraj's own choice, but the method of organisation is otherwise the same as in the first.⁵ The middle part, however, uses not songs but royal composers as its starting point. There Abū l-Faraj devotes articles to the musically gifted caliphs, Umayyad and 'Abbāsīd, and then to their musical children in chronological order,⁶ the first caliph

³ Abū l-Faraj al-Iṣbahānī, *Kitāb al-aghāni*, ed. Dār al-kutub, 24 vols. (Cairo 1927-74) 1.5-6. All subsequent references are to this edition, abbreviated to *Aghāni*.

⁴ Abū l-Faraj gives two versions of al-Wāthiq's Top Hundred, one transmitted by Yahyā ibn 'Alī ibn Yahyā al-Munajjim, the other by Aḥmad ibn Ja'far Jaḥḥa, *Aghāni* 1.7-11.

⁵ But he is less systematic here in his treatment of singers; a number of composers not previously discussed are passed over in silence, without even the comment that he could find nothing to say about them.

⁶ The arranging of biographical sections in chronological order was a common practice in medieval Arabic literature; Abū l-Faraj also follows it in the *Maqātil al-Ṭalibīn* and the *Imā 'al-shawā'ir*, two of his three other extant works.

being the pious 'Umar ibn 'Abd al-'Aziz (reg. 717-720 A.D.), whose activity as a composer dated back to his years as governor of the Hijaz, and the last al-Mu'taḍid (reg. 892-902 A.D.).⁷ Their articles do not, however, go beyond the presentation of their compositions and something of their character to examine their political role. As in the other parts, the treatment of the composer is accompanied by the treatment of the poet whose lines he set to music.

The material in the first part predates al-Wāthiq's death in the mid-ninth century.⁸ The material on the composers in the second part proceeds chronologically from the early years of the eighth century to the beginning of the tenth, though with a break of around a century between 'Umar ibn 'Abd al-'Aziz and Ibrāhīm ibn al-Mahdī (779-839 A.D.), the first member of the Abbāsīd house to attain fame as a musician. Here, as elsewhere, poets and composers are sometimes contemporaries, but more often the poets are earlier. The third part includes material from all the periods which occur in parts one and two, although Abū l-Faraj shies off including songs from his own time; the only acquaintance to whom he devotes an article is the pandore player and composer Ibn al-Qaṣṣār, and even then he relies on material from other sources.⁹ Indeed the closer Abū l-Faraj comes to his own time, after the mid-ninth century, the less informative he is; perhaps the latest personality of literary or musical life whom he treats is the poet-prince 'Abdallāh ibn al-Mu'tazz, murdered in 908 A.D.

On my calculation the *Kitāb al-aghānī* includes 334 articles on poets (6 of them women), 93 articles on singers (16 of them women), 8 articles on relationships, 31 on events and 27 on songs; this adds up to a total of 493 articles,¹⁰ in a text of nearly 9000

⁷ The Umayyad caliph al-Walid ibn Yazid (reg. 743-4) gets a very brief article in this section, having already been discussed at length as one of the poets of the Top Hundred songs.

⁸ There are occasional reports about later performances of the songs or quotations of the poetry, but they are the exception.

⁹ Abū l-Faraj states that he met and got to know him (*Aghānī* 14.113), but Ibn al-Qaṣṣār must then have been a very old man, since he is portrayed as having performed before al-Mu'tazz during his caliphate, that is, 866-869 (*Aghānī* 9.319-20). The singer was therefore some fifty years older than Abū l-Faraj.

¹⁰ These figures are approximate, depending on the definition of an article, and the classification of some articles into one category or another. They do, however,

pages in a standard modern edition.¹¹ Their length varies from 1 to 240 pages. They portray a great variety of social contexts: urban, oasis and nomadic; and of milieux: scholarly, military, tribal, courtly, and marginal. They present both pre-Islamic tribal conflicts and political events, learned exchanges, squabbles at court, rhetorical jousts and love affairs from the first three centuries of Islamic history, as well as legendary encounters and popular entertaining tales in circulation at the time. They also reflect the diversity of Arabic prose and poetry from their pre-Islamic origins to their maturity in the middle 'Abbāsid period. They include specimens of all the genres of poetry, and prose ranging from bare factual statements through short dialogues, anecdotes of various kinds, speeches, official and private correspondence to elaborate and detailed historical accounts.

One can easily gain the impression from this list that the *Aghāni* offers a comprehensive portrait of the society it treats. But there are subjects it touches on scarcely or not at all: non-courtly musical traditions,¹² the peasants and the non-Arabic speaking population of the Fertile Crescent, at this time still in the majority,¹³ and the philosophical and scientific movements associated with the assimilation and development of the Greek and Syriac intellectual heritage.¹⁴ Yet

give a reliable general picture of the *Aghāni*'s contents.

¹¹ The Cairo edition (as in n.3).

¹² Even the reception of court music in wider circles of urban society is hardly mentioned. One of the most revealing glimpses of it is given in the article on 'Ubayda the pandore player, which has a detailed description of her chequered career (*Aghāni* 22.208-10). Fragmentary indications can also be gleaned from other contemporary source, such as al-Mas'ūdī's *Murūj al-dhahab* (for which see below, n.14).

¹³ Here the *Aghāni* reflects the general bias of medieval Arabic literature towards city-dwellers, nomads and Arabic speakers.

¹⁴ In this respect it is instructive to compare the *Aghāni* with the *Murūj al-dhahab wa-ma'ādin al-jawhar* ("Meadows of gold and mines of precious stones") by Abū l-Faraj's contemporary al-Mas'ūdī. Al-Mas'ūdī travelled extensively through much of the known world of his time, and the geographical part of the *Murūj* reflects an exceptional open-mindedness to other societies and expressions of belief, these latter being a subject of great interest to him. The major part of the *Murūj* consists of an anecdotal history, with digressions on the various manifestations of culture and intellectual enquiry, which its author followed keenly. The *Murūj* has been edited and translated by 'Alī b. al-Ḥusayn al-Mas'ūdī, *Murūj al-dhahab wa-ma'ādin al-jawhar*, ed. Ch. Pellat, 7 vols. (Beirut 1965-79). Tr. under

despite these limitations, the *Aghāni* still offers a panorama unique in its variety of over three centuries of musical, literary, social and political life in Arabic and the Fertile Crescent. And here I come back to the introductory question: why should this encyclopaedic presentation of a culture have been organised around songs? Was it a whim of Abū l-Faraj's, or can attitudes to singing, the musical expression par excellence in the medieval Islamic world, help to explain the phenomenon, surprising to a modern reader, of the Top Hundred blossoming out into such a many-sided work?

Most of the medieval Arabic writings on music have not survived, but from extant texts and references to lost works it is possible to draw up an inventory of the subjects scholars treated.¹⁵ They include the nature of sound, the modal system, scales, rhythm, melodic structure, the construction of musical instruments and observations on performance practice. What is relevant for the present purpose is the theory developed about correspondences between music and other elements of the cosmos.

The first theoretician to turn his attention to this topic was the philosopher Ya'qūb ibn Ishāq al-Kindī (c.801-66 A.D.);¹⁶ three treatises of his devote space to it. For al-Kindī, as for other medieval Islamic writers on music, the basic instrument referred to in musical theory is the four-stringed lute.¹⁷ Al-Kindī develops a series of correspondences between the four strings and the quarters of the sky, the quarters of the zodiac, the quadratures of the moon, the substances of the primary elements, the places from which the winds blow, the seasons of the year, the weeks of the month, the hours of the day, the humours of the body, the four ages of man, and the intellectual faculties, physical powers and animal propensi-

the title *Les prairies d'or* by Ch. Pellat, 5 vols. (Paris 1965-74).

¹⁵ See, for recent accounts of this literature, the article "Mūsīqī" in *Encyclopaedia of Islam* (as in n.1) (O. Wright), and Amnon Shiloah, *Music in the World of Islam. A Socio-cultural Study* (Aldershot 1995) 45-67.

¹⁶ Article "Al-Kindī" in *Encyclopaedia of Islam* (as in n.1) (J. Jolivet and R. Rashed) which, however, does not discuss his writings on music. The extant ones have been collected and published: Zakariyā Yūsuf (ed. and comm.), *Mu'allafāt al-Kindī al-mūsīqīya* (Baghdad 1962).

¹⁷ This is despite the fact that al-Kindī wrote a treatise on instruments with from one to ten strings. It is "Kitāb al-musawwītāt al-watariya min dhāt al-watar al-wāḥid ilā dhāt al-'asharat al-awtār," in: *Mu'allafāt al-Kindī* (as in n.16) 68-92.

ties of the soul.¹⁸ Not only is the sense of hearing appealed to in his system, but also those of sight and smell, through the association of the appropriate colours and perfumes to the various rhythmic modes, which are themselves linked to the four strings.¹⁹ According to al-Kindī, those who invented the four-stringed lute²⁰ did so with the aim of revealing the underlying correspondences in the universe to the soul when it is moved to its utmost core by music.²¹ And the connection between the lute-strings and the different humours leads him to affirm music's therapeutic value.²²

Al-Kindī's ideas about correspondences between the lute-strings and other phenomena of the created world are taken further in the Epistles of the Sincere Brethren (*Rasā'il ikhwān al-ṣafā'*), an encyclopaedia of contemporary knowledge and gnostic thought of uncertain authorship, most likely written in the mid-tenth century.²³ The treatise on music in this collection not only affirms the effect music exerts on individuals and groups,²⁴ it also sees music on

¹⁸ "Risāla fī ajzā' khabariya fī l-mūsīqī," in: *Mu'allafāt al-Kindī* (as in n.16) 100-103; tr. Henry George Farmer, "Al-Kindī on the 'Ethos' of Rhythm, Colour and Perfume," *Transactions of the Glasgow University Oriental Society* 16 (1957) 32-35. A similar theory is found in the treatise on stringed instruments, *Kitāb al-muṣawwītāt al-watariya* (as in n.17) 75-78.

¹⁹ *Risāla fī ajzā' khabariya* (as in n.18) 104-6; translation, 35-7.

²⁰ In the text they are named as "al-Rūm", which most often indicates the Byzantines but may also refer to the Romans. At all events, the lute predates the Byzantines; *Kitāb al-muṣawwītāt* (as in n.17) 75.

²¹ *Kitāb al-muṣawwītāt* (as in n.17) 75.

²² On the subject of the therapeutic use of music in the medieval Islamic world, see Johann Christoph Bürgel, *The Feather of Simurgh. The "Licit Magic" of the Arts in Medieval Islam* (New York 1988) 92-100; Eckhard Neubauer, "Arabische Anleitungen zur Musiktherapie," *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften* 6 (1990) 227-272. Al-Kindī's remarks are found in *Kitāb al-muṣawwītāt* (as in n.17), 88-9.

²³ Article "*Ikhwān al-ṣafā'*," *Encyclopaedia of Islam* (as in n.1) (Yves Marquet), and for a synthesis of more recent research on this work the translator's introduction to *Ihwān as-Ṣafā'*, *Mensch und Tier vor dem König der Dschinnen. Aus den Schriften der Lauteren Brüder von Basra*, tr. with introduction and notes Alma Giese (Hamburg 1990). The discussion of the dating is in *Mensch und Tier*, xx.

²⁴ *Rasā'il ikhwān al-ṣafā' wa-khillān al-wafā'*, ed. Butrus al-Bustānī (Beirut 1957) 1.183-5. (The treatise on music, the fifth in the work, occupies 183-241.) An English translation exists: Amnon Shiloah, *The Epistle on Music of the Ikhwān al-Ṣafā'* (Tel Aviv 1978). The corresponding passage is on 12-15.

earth as a reflection of the music of the spheres, as Pythagorean theory conceived of it.²⁵ Two further reflections on the nature of music are particularly noteworthy. First, the Brethren explicitly state that within the tetrads, or groups of four—elements, seasons, humours, lute strings—and what corresponds to them, all natural beings and sensory things appear either in agreement or in opposition.²⁶ In other words, the tetrads comprise the whole of the universe. And second, they propose the image of music as a text, in which the “notes...play the role of letters, the melodies that of words, the chant that of discourse, the air that serves them as support...the role of paper.”²⁷ In the Brethren’s philosophy, “music reflects the harmonious beauty of the universe” and music composed according to the rules of correct harmony can help man “in his attempt to achieve spiritual and philosophical equilibrium.”²⁸

If such ideas were in the back of Abū l-Faraj’s mind as he compiled his Book of Songs, it becomes much easier to understand the work’s scope and variety. But what evidence is there to support such a theory? Can a connection be traced between him and either al-Kindī or the Sincere Brethren?

Al-Kindī was a companion of the caliphs al-Ma’mūn and al-Mu’taṣim; among the treatises he dedicated to the latter’s son Aḥmad is one on the composition of melody and the structure of the lute.²⁹ His most prominent disciple, Abū l-‘Abbās Aḥmad ibn al-Ṭayyib al-Sarakhsī,³⁰ was the tutor and later companion (*nadīm*) of the caliph al-Mu’taḍid, whom Abū l-Faraj admired greatly as a composer.³¹ Al-Sarakhsī had wide-ranging scientific, philosophical and literary interests. As a transmitter of information about singers and poets he is quoted several times in the *Kitāb al-aghānī*, with

²⁵ *Rasā’il* (as in n.24) 225-6; translation 56-7.

²⁶ *Rasā’il* (as in n.24) 232; translation 63.

²⁷ *Rasā’il* (as in n.24) 205; translation 35.

²⁸ Shiloah, *Music in the World of Islam* (as in n.15) 50.

²⁹ “Mukhtaṣar al-mūsīqī fī ta’līf al-naghām wa-ṣan’at al-‘ūd” (“Compendium of music on the composition of melodies and the construction of the lute”), in *Mu’allafāt al-Kindī* (as in n.16) 112-120.

³⁰ c. 835-899; article “Al-Sarakhsī, Abū l-‘Abbās Aḥmad b. al-Ṭayyib b. Marwān” in *Encyclopaedia of Islam* (as in n.1) (F. Rosenthal).

³¹ *Aghānī* 9.344-5.

one intermediary between him and Abū l-Faraj.³² Only once is his information derived from al-Kindī, and then it concerns a thumbnail sketch of Abū Ḥafṣ al-Shīṭranjī, poet-in-residence of the princess and musician 'Ulayya bint al-Mahdī.³³ But it is inconceivable that Abū l-Faraj was unaware of the philosopher's writings on music, for he belonged to the court circles from which much of the *Aghānī*'s information on ninth-century musical life comes. Moreover, Abū l-Faraj was well acquainted with contemporary musical theory, as some of his remarks reveal,³⁴ and he was the author of at least one treatise of a theoretical nature, a *Kitāb fī l-nagham* (Book of Tones).³⁵

Whereas the circumstantial evidence for Abū l-Faraj having known of al-Kindī's ideas is compelling,³⁶ a connection between him and the Brethren of Purity is highly unlikely. Because of the secrecy in which they worked, the Brethren remain a mysterious group. But their *Rasā'il* are customarily dated to around 955 A.D.,³⁷ in other words many years after Abū l-Faraj had begun working on the *Kitāb al-aghānī*.³⁸ The Epistles reveal a profound influence of

³² E.g. *Aghānī* 5.342; 12.283-4; 14.48; 19.220; 22.208. The intermediary is almost always either Abū l-Faraj's uncle or Aḥmad ibn Ja'far Jaḥḥa.

³³ *Aghānī* 22.44.

³⁴ See, for instance, his discussion of 'Ubaydallāh ibn 'Abdallāh ibn Ṭāhir's claim to have composed a melody including the ten tones; *Aghānī* 8.373-5.

³⁵ Referred to in *Aghānī* 8.374 and 10.97.

³⁶ Al-Kindī's absence from the *Aghānī* could be explained by the fact that Abū l-Faraj was concerned with performers and matters of performance, but not systematically with theorists. Moreover, al-Kindī's ideas on rhythmic and melodic musical modes diverged significantly from the system propounded by Isḥāq al-Mawṣillī, which Abū l-Faraj adopted as the basis for performance indications in the *Aghānī* and regarded as exemplary. With his normative approach to musical theory, Abū l-Faraj was unlikely to give publicity to alternative ideas, especially if they were not well grounded in practice. See, for al-Kindī's views, Eckhard Neubauer, "Die acht 'wege' der arabischen Musiklehre und der Oktoechos," *Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften* 9 (1994) 373-414, esp. 381-4, 398-403; Eckhard Neubauer, "Al-Ḥalīl, die 'Töne' und die musikalischen Metren," *ibid.* 10 (1995/96) 255-323, esp. 290-95.

³⁷ *Iḥwān as-Safā', Mensch und Tier* (as in n.23) xx.

³⁸ It is not known exactly when Abū l-Faraj started working on the *Aghānī*, which is customarily regarded as his *magnum opus*. But even if the information mentioned in his medieval biographies, that he spent fifty years on it, is not to be taken literally, it is clear that he was engaged on it for much of his life.

esoteric beliefs pertaining to Sufi mysticism and to Shī'ī, particularly Ismā'īlī gnosis.³⁹ Nothing in Abū l-Faraj's biography or writings gives grounds for believing that he sympathised with such views. It may therefore be assumed that theories such as that of earthly music reflecting the music of the spheres were unacceptable to him, if he knew about them.

But the *Rasā'il* also develop older ideas. In the case of music, they reaffirm and elaborate al-Kindī's theory of correspondences, extending them to the universe as a whole. The image of music as a text which they develop is by no means far fetched, in terms of the poetic discourse of the time, and may perhaps also be found in poems or other texts.⁴⁰ To the extent that the Epistle on music reflects the contemporary cultured public's thinking on the subject, it may well contain ideas familiar to Abū l-Faraj.

At all events, I suggest that the belief in the correspondences between different elements of music and other phenomena in the universe should be taken seriously as one of Abū l-Faraj's inspirations in compiling the *Kitāb al-aghānī*. For only such an idea can explain why what started out as a "Vintage Chart Show" in writing turned into the splendid and various panorama of pre-Islamic and early Islamic literature and culture we have now.

Whether this musically based encyclopaedia was an achievement unique to medieval Arabic literature, or whether it has parallels in other cultures, is a question which needs to be examined in co-operation with specialists of other literary traditions, both European and Asian.⁴¹

³⁹ Iḥwān as-Safā', *Mensch und Tier* (as in n.23) xxii-xxvii.

⁴⁰ The tenth-century poet Abū l-Faṭḥ Kushājīm wrote on music as one of the courtier's accomplishments, and his *diwān* (collected poems) includes a statement of his own musical taste as well as descriptions of musical instruments and performers (Alma Giese, *Wagf bei Kushājīm* [Berlin 1981] 103). He also composed a poem on music, according to the slightly later al-Ḥasan b. Aḥmad al-Kātib (*Kitāb kamāl adab al-ghinā'*; tr. A. Shiloah, *La perfection des connaissances musicales* [Paris 1972] 206). I was not able to pursue this further because Kushājīm's works were not available to me. For an example of an extended simile applied to another kind of artistic expression, see Gregor Schoeler, "On Ibn al-Rūmī's Reflective Poetry: His Poem about Poetry," *Journal of Arabic Literature* 27 (1996) 22-36.

⁴¹ There is no complete translation of the *Kitāb al-aghānī*. The first few articles were translated into Latin by J.G.L. Kosegarten: *Alii Ispahanensis liber cantilenarum magnus Arabice editus adjectaque translatione adnotationibusque illus-*

tratus (Greifswald 1840-43). Selections are available in German: Abu l-Faradsch, *Und der Kalif beschenkte ihn reichlich*, tr. Gernot Rotter (Tübingen-Basel 1977); Russian: Abu-l'-Faradzh al'-Isfakhani, *Kniga pesen*, tr. A.B. Khalidov and B. Ya. Shidfar (Moscow 1980); and French: Jacques Berque, *Musiques sur le fleuve. Les plus belles pages du Kitāb al-Aghāni* (Paris 1995).

MEMORY, DIVISION, AND THE ORGANISATION OF KNOWLEDGE IN THE MIDDLE AGES

KIMBERLY RIVERS

In their articles on medieval manuscripts, Mary and Richard Rouse have noted that thirteenth-century scholars had a more aggressive and utilitarian attitude toward the page than had previous generations. Rather than merely reading and ordering the knowledge of the past, these scholars searched written works in order to answer new questions.¹ Developments in page layout such as running headlines, and the many new research tools that appeared in the late twelfth and thirteenth centuries, such as concordances, encyclopaedias,² and *exempla* collections, are witness to this transformed attitude. Concomitant with a change in approach to the page may have come a change in approach to memory. The Rouses speculate that after the twelfth century memory may have become an inadequate finding device for retrieving information, as scholars attempted tasks for which memory was unsuited.³ Memory was still relevant to medieval writers, but now it was aided by the new tools. In fact, it has been suggested by Mary Carruthers and others that memory techniques influenced the organisation of those tools.⁴

¹ Mary A. Rouse and Richard R. Rouse, "The Development of Research Tools in the Thirteenth Century," in: Mary A. Rouse and Richard R. Rouse, *Authentic Witnesses: Approaches to Medieval Texts and Manuscripts* (Notre Dame, IN 1991) 221-22.

² By encyclopaedias I understand medieval works commonly called encyclopaedias by modern scholars: works that attempt to collect and order as comprehensive a view of knowledge as possible. Michael Twomey, "Medieval Encyclopaedias," in: R.E. Kaske, Arthur Groos, Michael W. Twomey (eds.), *Medieval Christian Literary Imagery. A Guide to Interpretation* (Toronto 1988) 182.

³ "Statim invenire: Schools, Preachers, and New Attitudes to the Page," in: Robert L. Benson and Giles Constable (eds.), *Renaissance and Renewal in the Twelfth Century* (Cambridge, MA 1982) 202-203.

⁴ Mary Carruthers, *The Book of Memory: A Study of Memory in Medieval Culture* (Cambridge 1990) 101-102; Ivan Ilich, *In the Vineyard of the Text: A Commentary to Hugh's Didascalicon* (Chicago and London 1993) 45; Denis Huë, "Structures et rhétoriques dans quelques textes encyclopédiques du Moyen Âge," in: Annie Becq (ed.), *L'Encyclopédisme. Actes du Colloque de Caen 12-16 janvier 1987* (Paris 1991) 311-312.

I propose to explore the connection between memory and the use of reference works by examining Hugh of St. Victor's memory precepts, laid out in the early twelfth century before the fresh attitudes toward the page took effect. Though Hugh is not much concerned with the quick retrieval of information, he does care about ordering material and sharing it with others. In this respect, he saw a role for the transferral of mnemonic techniques to the page. In particular, his use of mnemonic terms like division, collection, and *compendia* suggests that some written compilations were products of mnemonic techniques. Hugh's ideas about memory and the organisation of information can be seen as a first step toward the thirteenth-century attitude toward the page.⁵ Without wishing to duplicate recent work on Hugh's mnemonic methods, I would like to refine the interpretation of Hugh's memory system and to discuss how his ideas could affect the organisation of information in a practical way.

Throughout his works, Hugh of St. Victor holds memory in high esteem as an indispensable learning tool. He implies that modern students are not as proficient as the ancients in retaining what they have learned, and thus he provides some aids to help his students catch up. Hugh describes a variety of memory methods, but the one most quoted in educational contexts and the one that most elucidates encyclopaedism is a simplified method described in the *Didascalicon*.⁶ A related, but not identical, method is found in the preface to the *Chronicon* (*De tribus maximis circumstantiis gestorum*).⁷

The mnemonic advice in the *Didascalicon* depends on two no-

⁵ Carruthers, *The Book of Memory* (as in n.4) 80-85, 162-65, 231-39; Carruthers, "The Poet as Master Builder: Composition and Locational Memory in the Middle Ages," *New Literary History* 24 (1993) 881-904. Illich, *Vineyard of the Text* (as in n.4) 29-50; Grover Zinn, Jr. "Hugh of Saint Victor and the Art of Memory," *Viator* 5 (1974) 211-34.

⁶ Hugh of St. Victor, *Didascalicon*, *De studio legendi*, ed. by Charles Henry Buttimer (Washington, D.C. 1939) 3.3; English translation from Jerome Taylor, (trans.), *The Didascalicon of Hugh of St. Victor* (New York and London 1961) 87.

⁷ A more complex mnemonic system is described in Hugh's ark and is analysed in Carruthers, *Book of Memory* (as in n.4) and in Kimberly Rivers, *Memory and the Mendicant Orders in the Later Middle Ages* (Ph.D. diss., Toronto 1995) ch.2.

tions: collection (*collectio*) and division (*divisio*). Hugh connects the two terms in his chapter on memory:

Concerning memory I do not think one should fail to say here that just as aptitude investigates and discovers through analysis (*divido*), so memory retains through gathering (*collectio*). The things which we have analysed in the course of learning (*quae discendo divisimus*) and which we must commit to memory, we ought, therefore, to gather.⁸

"To gather or collect" is "to reduce to a brief and compendious outline (*summa*) things which have been written or discussed at some length. The ancients called such an outline an 'epilogue,' that is, a short restatement, by headings, of things already said."⁹ Ancient orators did include an epilogue or *conclusio* at the end of their speeches. One type of conclusion, called the *enumeratio*, was intended to refresh the memory of the audience. Victorinus even uses the term "collect," saying that an orator may enumerate by "touching briefly on and collecting those things which you said before."¹⁰ The advice, however, pertains to oratory, not to education. Hugh intends by the term something like a summary or an abstract: "every exposition has some principle upon which the entire truth of the matter and the force of its thought rests, and to this principle everything else is traced back. To look for and consider this principle is to 'gather.'"¹¹ The end result of gathering or collecting is a "compendious *summa*."

The analysis or division that Hugh refers to is his method of expounding a text.

Every analysis (*divisio*) begins from things which are finite, or defined, and proceeds in the direction of things which are infinite, or undefined. Now every finite or defined matter is better known and able to be grasped by our knowledge; teaching, moreover, begins with those things which are better known and, by acquainting us with those, works its way to matters which lie hidden. Furthermore, we investigate with our reason (the proper function of which is to analyse) when, by analysis and investigation of the natures of individual

⁸ Hugh of St. Victor, *Didas.* (as in n.6) 3.11; Taylor, *Didas.* (as in n.6) 93.

⁹ *Didas.* (as in n.6) 3.11; Taylor *Didas.* (as in n.6) 93.

¹⁰ Victorinus, *Explanat. in reth.*, in: Carolus Halm (ed.), *Rhetores Latini Minores* (Leipzig 1863) 2.52.256. Cf. Cicero, *De inventione* 1.52.98.

¹¹ Taylor *Didas.* (as in n.6) 93

things, we descend from universals to particulars.¹²

To talk of expounding as a process of “dividing,” of moving from better known things to the less well known, and of “descending from universals to particulars” is at first puzzling. Because the concept of division is crucial to Hugh’s mnemonic system, it is worth exploring it in some detail.¹³

Divisio has a background both in rhetoric and in logic. In ancient rhetoric, division was used to order a speech and to aid memory. According to Quintilian, division is almost the only way of remembering what we have planned to say:

[f]or correct division will be an absolute safeguard against error in the order of our speech, since there are certain points not merely in the distribution of the various questions in our speech, but also in their development ... which naturally come first, second, and third ... while the connexion will be so perfect that nothing can be omitted or inserted without the fact of the omission or insertion being obvious.¹⁴

This confidence in division, however, does not delineate its functions. Quintilian defines it as “the division of a group of things into its component parts,” while the related concept of *partitio* is “the separation of an individual whole into its elements.”¹⁵ Partition is thus a subset of division and is the term Quintilian uses most frequently to refer to the enumeration of points or *propositiones* that an orator intends to cover in his proof. It delivers signposts to the speaker and to the audience of the material to follow and is obviously useful to memory. This function is likely what Quintilian means by division in its general sense, but it does not fully explain Hugh’s conception of the term.

However, division also has a function in logic that seems to fit Hugh’s meaning more closely.¹⁶ In logic *divisio* represents the

¹² Hugh of St. Victor, *Didas.* (as in n.6) 3.9; Taylor, *Didas.* (as in n.6) 92. See also *Didas.* 3.7, 3.8, 6.12.

¹³ Although Carruthers does discuss Hugh’s use of *divisio*, she neglects the logical background of the term which alone makes it intelligible: Carruthers, *Book of Memory* (as in n.4) 80-107.

¹⁴ Quintilian, *Institutio oratoria*, trans. H.E. Butler, Loeb Classical Library (Cambridge, Mass 1953) 11.2.37.

¹⁵ *Inst. orat.* 7.1.1 (as in n.14).

¹⁶ *Divisio* is mentioned in a number of logical texts that were available to Hugh in the early twelfth century, including Porphyry’s *Isagoge*, Boethius’ *De*

starting point in the reasoning process, followed by *definitio* and *collectio*. Division consists of separating genera into species in order to provide the basis for the definitions and propositions of logical argument.¹⁷ *Collectio* concludes the reasoning process by arranging the propositions drawn from division and definition into a syllogism or proof.

Hugh has clearly adapted this usage from logic. His explanation of division does not differ much from the explanations of the ancient authorities on the topic: Boethius and Porphyry. According to them, division must descend from universals to particulars, and must divide finite, not infinite things.¹⁸ Division must necessarily move in a hierarchical fashion, from general concepts (genera) to specific ones (species); when drawn out schematically, division looks like one of those trees so beloved by medieval preachers. Hugh himself demonstrates how division must work in instruction in the early books of *Didascalicon*, where he divides the arts and sciences into their component parts, moving from universal concepts to particular subjects.¹⁹

However, if Hugh's conception of division is clearly related to ancient logic, his notion of *collectio* is not, being drawn instead from the rhetorical sources mentioned above. For him, *collectio* is not a matter of sorting out propositions for a proof but is instead a matter of making abstracts of important material. Thus, one might

divisione, and his commentaries on *Isagoge* and Cicero's *Topics*. Porphyry, *Isagoge* 6.13; Boethius, *De divisione* (PL 64, 875-92); Boethius, *In topica Ciceronis commentaria* (PL 64, 1045). For the availability of ancient logical texts in the early Middle Ages, see Sten Ebbesen, "Ancient Scholastic Logic as the Source of Medieval Logic," in: Norman Kretzman, Anthony Kenny, Jan Pinborg (eds.), *Cambridge History of Later Medieval Philosophy: From the Rediscovery of Aristotle to the Disintegration of Scholasticism 1100-1600* (Cambridge 1982) 101-27

¹⁷ Until the thirteenth century, Boethius' *De divisionibus* provided the standard teaching on divisions: Ebbesen, *Ancient Scholastic Logic* (as in n.16) 122.

¹⁸ Porphyry's *Isagoge* says that one descends from general to specifics by dividing and that one ascends back to generals by collecting, 6.13. Boethius, *De divisione* (PL 64, 877, 882D).

¹⁹ In the preface to *Didascalicon*, Hugh, in fact, reveals the integral role of division in his book: *ut autem sciri possit quid legendum sit aut quid praecipue legendum sit, in prima parte primam numerat originem omnium artium deinde descriptionem et partitionum earum, id est quo modo unaquaeque contineat aliam, vel contineatur ab alia, secans philosophiam a summo usque ad ultima membra*, Hugh of St. Victor, *Didas., Praefatio* (as in n.6) 2.

summarise the *Didascalicon*'s advice so: the diligent student or teacher will "analyse" or "divide" the text in order to discern universal and particular ideas and to indicate their order and relationship. He will then summarise (or "collect") the main points of these discoveries and store them in his memory. Exactly how the memory retains the collections is not entirely clear. However, a thirteenth-century text does provide a model for how this type of mnemonic division might function.

In *Rhetorica novissima* Boncompagno da Signa (c.1165/75-c.1240) articulates a potpourri of mnemonic precepts.²⁰ Though he does not use the term *divisio*, Boncompagno does offer some mnemonic advice based on the related idea of *ordo*. He uses the seating arrangement of the Fourth Lateran Council as an example of this principle. According to him, Pope Innocent III

had, through knowledge of the greater people, memory of their inferiors under a certain "generality." By beginning with himself, as though from the most general *genus*, he descended, preserving by degree the dignities and offices of each, to individuals as though to subalternated species.²¹

Other dignitaries, such as emperors and kings, may imitate this method, which relies on order and hierarchy. Boncompagno outlines a similar scheme in his plan for the perfect schoolhouse. In it, the teacher occupies the highest seat (because of his greater authority and so that he can keep an eye on the door), while the students are arranged according to rank. On no account is the seating order to be changed, nor should any student dare to take an-

²⁰ Boncompagni, *Rhetorica novissima*, in: A. Gaudenzi (ed.), *Scripta anecdota antiquissimorum glossatorum* (Bologna 1892). See Terence Tunberg, "What is Boncompagno's 'Newest Rhetoric'?" *Traditio* 42 (1986) 300, nn.4-6 and Ronald G. Witt, "Boncompagno and the Defense of Rhetoric," *JMRS* 16 (1986) 1-31 for details of his rhetorical innovations and for bibliography. For Boncompagno's biography, see "Boncompagno", *Dizionario biografico degli italiani* (Rome 1964) 11.720-25.

²¹ Boncompagno, *Rhet. novis.* (as in n.20) 8.279: *Sumat igitur ab Innocentio papa exemplum qui nuper generale concilium celebravit, in quo per maiorum personarum notitiam, memoriam inferiorum sub quadam generalitate habuit, incipiens a se ipso tanquam a genere generalissimo et faciens descensum, conservatis gradatim quorumlibet dignitatibus et officiis, ad singulos tanquam ad species subalternas.*

other's spot.²²

The key to Boncompagno's *ordo memorandi* is hierarchy, whether social, ecclesiastical, or logical. One begins with the highest part of a genus, as it were, and descends by dividing to individual members, or species. For those wishing to master the names of the inhabitants of the animal kingdom, Boncompagno advises finding the ruler of the appropriate realm: the lion is the king of the beasts, the eagle is the queen of the birds, the whale is the emperor of the fish, etc. One then moves down from the ruler to individuals, putting the worthier animals ahead of the lesser.²³ The system thus provides a classifying scheme that supplies each name with its proper slot.

This plan is clearly similar to division in the *Didascalicon* and might even be Boncompagno's attempt to put Hugh's scheme into practice. A basic logical skill turns out to be a basic mnemonic and organisational skill as well; if one begins from the highest point of a genus or topic, one can arrive at the most particular point and hold it in memory. Given that logical training was so pervasive in the schools, it is not surprising that divisions turn up everywhere and that mnemonic advice is rarer than one might expect. Evidently, one learned more than logical skills when one learned to divide.

Of course, it is hard to know how much information those divisions could hold: Hugh recommends summaries, and Boncompagno seems content to remember names and relationships by this method. Hugh may intend to provide a more comprehensive method in *De tribus maximis circumstantiis gestorum*.²⁴ In this little treatise, Hugh advocates three "circumstances" as the key to memory: number, place, and time. For our purpose, number is the most important of the three, for under it Hugh describes a memory method in language very similar to that quoted above. Since Mary Carruthers has already analysed the work, only a brief summary is necessary.

²² Boncompagno, *Rhet. novis.* (as in n.20) 8.279.

²³ Boncompagno, *Rhet. novis.* (as in n.20) 8.280: *Ergo in cellule memorialis repositoio ad bestias, aves, pisces et reptilia secundum genera singulorum per tuam industriam facies regularem descensum, digniora naturaliter premittendo.*

²⁴ Hugh of St. Victor, "*De tribus maximis circumstantiis gestorum*," ed. William Green, *Speculum* 18 (1943) 484-93. See Carruthers, *Book of Memory* (as in n.4) 93, 261-66.

Hugh advises his young readers to contemplate in their minds a line of natural numbers extended lengthwise, starting with one (i.e. the integers from one to infinity).²⁵ The student should practice finding any desired number quickly along this line until his searching routine becomes routine. Once mastered, the technique can be used to memorise many things: Hugh gives, as example, the Psalms. First, one places the initial words of each Psalm, such as "Beatus vir," in order along the number line, from 1 to 150. When one can quickly find the numbered place of any Psalm in any order, one should apply the same method to the verses of the Psalms.

By dividing and distinguishing at first the book according to the Psalms, then the Psalms through the verses, I reduce the wordiness to a brief compendium. And, indeed, this method can easily be used with the Psalms or with other books possessing fixed divisions. But where there is a continuous flow of text, it is necessary for this to be done by art, as it pleases the reader, where it seems most appropriate. First the whole series is divided into some fixed parts, and these again into others, and those into yet others, until the entire text is brought under control.²⁶

Brevity is the key to the entire process, and Hugh cautions that each set of divisions must contain a small number of items.

This explanation of *divisio* is more explicit than that in the *Di-*

²⁵ Hugh, *De tribus maximis* (as in n.24) 489: *Disce contemplari in animo tuo lineam naturalis numeri ab uno in quamlibet longam porrectionem quasi ante oculos cordis tui extensam*. Carruthers translates *linea naturalis numeri* as "grid," but surely the phrase is "a line of natural numbers." *Naturalis numerus* was a mathematical term for the integers from one to infinity. See Boethius, *De institutione arithmetica*, ed. Godofredus Friedlein (Leipzig 1867) 47.28, one of the major mathematical works until the twelfth century, where the term is defined. My guess is that Hugh's "grid" would look a great deal like the canon-like tables that made up the *Chronicon*, the work to which the *De tribus* was attached as preface.

²⁶ Hugh of St. Victor, *De tribus maximis* (as in n.24) 490: *Cognitis autem psalmis, idem facio in singulis psalmis de initiis versuum quod feci in toto psalterio de initiis psalmorum, totamque deinceps seriem in singulis versibus facile corde retineo postquam, dividendo et distinguendo imprimis librum per psalmos deinde psalmum per versus, tantam prolixitatem ad tantum compendium et breviter redigi. Et hoc quidem in psalmis sive in aliis libris certas distinctiones habentibus facile videri potest. Ubi autem continua series est lectionis, id ipsum artificio fieri oportet, ut scilicet secundum lectoris placitum, ubi competenter videbitur, primum tota series in certas aliquas partes dividatur, et illae rursus in alias, illae iterum in alias, donec tota prolixitas ita restringatur*. (My translation)

dascalicon. "Dividing" literally means partitioning a text into increasingly smaller sections in order to create a "brief compendium." The division is a physical one but does not consist so much of breaking the text every seven words or so²⁷ as of making hierarchical distinctions, as Hugh does with the Psalms. This division preserves the cohesion of the text, since each section is nested inside the preceding one.

The recommendation to divide one's text for mnemonic purposes is related to, but not necessarily identical with, the logical division that we have already investigated. In the emphasis on hierarchical descent, the two methods are clearly related. However, in *De tribus maximis* Hugh does not divide his text by any logical distinction. Instead, he follows the verse divisions already present in the Psalms. If a text is not supplied with divisions, Hugh advises his students to create their own, a necessary skill in the twelfth century, when most manuscripts had few chapter divisions.²⁸

To summarise the relationship of memory and division in Hugh's memory methods: the difference between division in *Didascalicon* and in *De tribus maximis* is that one divides ideas and the other divides a text. Taylor rightly translates *modus legendi*, the title of the chapter that explains division in *Didascalicon*, as "the method of expounding." His translation reflects one of the three types of reading that Hugh outlines in *Didascalicon*: reading to someone else, i.e. teaching.²⁹ Division is a method which Hugh himself employs as he teaches his students what to read; here it aids memory by indicating what a student should remember. In contrast, the kind of division elaborated in *De tribus maximis* is more clearly a memory method, providing a way of retaining a great deal of material.

The goal of collection in *Didascalicon* and of division in *De tribus maximis* is a *summa* or compendium; these terms may help explain the movement toward encyclopaedism and the development

²⁷ As Carruthers seems to see it, *Book of Memory* (as in n.3) 80-107.

²⁸ See Carruthers' discussion of chapter divisions, Carruthers, *Book of Memory* (as in n.4) 94-96.

²⁹ Hugh of St. Victor, *Didas.* (as in n.6) 3.7. *Lectio* "consists of forming our minds upon rules and precepts taken from books" and may occur in three ways: by teaching (reading to someone else), by learning (being read to by someone else), or by examining the text oneself (reading to oneself).

of other reference works in the late twelfth and thirteenth centuries, when education was becoming professionalised. Certainly the terms *brevis summa* and *compendium* recur constantly in Hugh's educational and theological works, either as goals to be aimed at or as descriptions of his own work. In fact, he describes a *compendium* as the objective of teaching:

[w]hen, therefore, we treat of any art—and especially in teaching it, when everything must be reduced to outline (*compendium*) and presented for easy understanding—we should be content to set forth the matter in hand as briefly and clearly as possible, lest by excessively piling up extraneous considerations we distract the student more than we instruct him. We must not say everything we can, lest we say with less effect such things as need saying.³⁰

For Hugh, *compendia* reduce necessary knowledge to a memorable and intelligible form. The key to them is that the teacher or learner has selected the most important information to learn and to remember. From these selections, all the other material may be derived.

It is clear that Hugh regards many of his educational and theological works as *compendia*, the fruits of division and collection. For instance, in the preface to *De sacramentis* he refers to his new work as the foundation of allegorical interpretation:

For I have compressed this brief summa, as it were, of all doctrine into one continuous work, that the mind may have something definite to which it may affix and conform its attention, lest it be carried away by various volumes of writings and a diversity of readings without order or direction.³¹

In the same preface, he refers to another work of scriptural instruction as a *compendiosum volumen*, while *De sacramentis* is a *brevis summa*, the same words that designate mnemonic practices in *De tribus maximis* and *Didascalicon*. Their use indicates what Hugh may mean by a *brevis summa*—in *De sacramentis*, a running outline of the mysteries of faith, comprehensive in scope but concise in elaboration.³² When Hugh's words are understood in a mnemonic

³⁰ Hugh of St. Victor, *Didas* (as in n.6) 3.5.

³¹ Roy J. Deferrari (trans.), *Hugh of St. Victor. On the Sacraments of the Christian Faith (De Sacramentis)* (Cambridge, Mass. 1951) 3. Hugh, *De sacramentis* (PL 176, 183).

³² Examples of Hugh's emphasis on the memorisation of factual knowledge

context, it is clear that he is not making modest disclaimers about *De sacramentis*, but rather that he sees his theological explanation as a short introduction to Christian doctrine, theological notes that were likely once held in Hugh's memory.

For this reason, one should consider carefully what an author may mean when he describes his work as a *collectio*, a *compendium*, or a *brevis summa* (words often used to introduce encyclopaedic works): the resulting text may be the product of mnemonic division and gathering now spread out on the page.³³ The term *summa* had many connotations in the Middle Ages; in some cases it could mean compilation or even encyclopaedia. One of its major senses is "compendium," a brief summary of the principles of a particular subject.³⁴ It is surely this sense of the word *summa* that Hugh intends. One could thus see Hugh's *compendia* as an early step toward encyclopaedism, a step with a clear mnemonic aspect. To conclude, Hugh's notion of a *compendium* indicates that there is a mnemonic context for the arrangement of material in compilations. One achieves a *compendium* or short *summa* when one divides or collects the material to be learned or when one divides up a text by his number line method. In either case, one has reduced a great deal of material to a manageable and organised form. His adoption of the same terms to describe his own work indicates both that his written works have a mnemonic aspect and that he saw a need to share his organisational skills by putting them in writing. This desire to make mental organisation accessible to others may have been a motivating factor for later medieval compilers and should be explored. One thing is certain: divisions soon made their appearance on the thirteenth-century page. The process of division and collection seem to describe the job of a medieval compiler, as well as that of most teachers and preachers in the High Middle

combined with *summa* language can also be found in his teachings on the arts. See Roger Baron, "Hugonis de Sancto Victore Epitome Dindimi in philosophiam," *Traditio* 11 (1955) 105; Jean Leclercq, "Le 'De grammatica' de Hugues de Saint-Victor," *AHDLMA* 14 (1943-45) 271, 273, 288. Both works can also be found in Roger Baron, *Hugonis de Sancto Victore, Opera propaedeutica: Practica geometriae, De grammatica, Epitome Dindimi in philosophiam* (South Bend 1966).

³³ See Carruthers, *Book of Memory* (as in n.4) 83 ff, where she discusses Hugh's idea of gathering.

³⁴ P. Glorieux, "Sommès théologiques," *DThC* 14.2, 2341-43.

Ages, and may explain that curious passion for divisions so often remarked upon by modern scholars. Scholars should not see medieval writers' passion for divisions as a kind of quirk but rather as an integral part of teaching, learning, and writing in the Middle Ages.

THE ATTITUDE TOWARDS KNOWLEDGE IN
MAMLŪK EGYPT: ORGANISATION AND STRUCTURE OF
THE *ṢUBḤ AL-A‘SHĀ* BY AL-QALQASHANDĪ (1355-1418)¹

MAAIKE VAN BERKEL

In this paper, I will discuss an Arabic encyclopaedic text, the *Ṣubḥ al-a‘shā*, composed in Egypt at the beginning of the fifteenth century. I shall attempt to shed light on its function and the ways in which it was used, specifically on the question of whether it was a textbook meant to be learned by heart, or a manual, a work of reference, intended for consultation. The answer to this question is significant since it may establish the existence of “consultation literacy”² in the Arabic literary culture of the fourteenth and fifteenth centuries. I will try to answer this question by analysing the organisation and structure of this work.

The author of the *Ṣubḥ al-a‘shā*, al-Qalqashandī, was born in 1355 in Egypt in a little village north of Cairo, into a family of scholars. He received an education in Islamic law in Alexandria and Cairo. After a short period of teaching, he accepted a position as clerk (*katib al-darj*) in the chancery of the Mamlūk court in Egypt. Like many scholars of his time, al-Qalqashandī wrote treatises in various domains such as jurisprudence, literature, genealogy and history.

In his capacity as chancellor he composed his most famous work, entitled *Ṣubḥ al-a‘shā fī šinā‘at al-inshā’* (*The Daybreak for the Sufferer of Night-blindness in Composing Official Documents*). The *Ṣubḥ al-a‘shā* is a massive work, in the standard edition comprising fourteen volumes and more than 6500 pages. It

¹ This paper is based on my master’s thesis in Arabic studies: M. van Berkel, *A Tool for the Scribe. Structure and Organization of the Ṣubḥ al-a‘shā by al-Qalqashandī (1355-1418 A.D.)*, Master’s thesis, University of Amsterdam, Faculty of Arts, Department of Islamic and Arabic Studies (Amsterdam 1996).

² Cf M. Mostert, “What happened to literacy in the Middle Ages. Scriptural evidence for the history of the western literate mentality,” *Tijdschrift voor Geschiedenis* 108 (1995) 323-335; R.H. Rouse and M.A. Rouse, *Preachers, Florilegia and Sermons. Studies on the Manipulus florum of Thomas of Ireland* (Toronto 1979); J.C. Schmitt, “Recueils franciscains d’exempla et perfectionnement des techniques intellectuelles du XIIIe au XVe siècle,” *Bibliothèque de l’Ecole des Chartes* 135 (1977) 5-21.

contains information on a wide variety of subjects, such as history, geography, biology and grammar. The largest part, however, is dedicated to instructions concerning the writing of the various documents emanating from the chancery. Al-Qalqashandī called the discipline about which he wrote *kitābat al-inshā'*, "the art of composing official documents" as it was practised in the chancery, the *diwān al-inshā'*. In the introduction to his work al-Qalqashandī states his goals and intended readership.

Authors who wrote about this art had different intentions for their work, and they used different sources in collecting and writing their books. ... There was, however, not yet a work in which these intentions were combined and no book that provided the main authorities and sources of this skill. On the contrary, most of the books written about this topic contain nothing more than the art of eloquence or clear expression, which happen to be preferred by *kuttāb* [scribes], or a number of technical terms that have already been rejected and whose models have already been changed and destroyed. It is not enough to concentrate on the imitation of *kuttāb* of the past and it is not enough for the one who is still time and again deficient in knowledge. For knowledge of the technical terms is absolutely necessary and of the first importance, due to the general need for it, and the one whose knowledge is still deficient should restrict himself to it.³

Treatises written for clerks belong to a genre known in Arabic as *adab al-kātib*. This genre first appeared in the ninth century with Ibn Qutayba's work, called *adab al-kātib*,⁴ and it emerged from the general *adab* genre. I will give a brief outline of the development of the *adab* genre in order to show the place of the *Ṣubḥ al-a'shā* within this tradition.

The oldest meaning of the word *adab* is "a praiseworthy habit or norm derived from one's ancestors."⁵ Already in the early period of Islam this meaning developed in two different directions. First it began to refer to the sum of the kind of knowledge that makes a person refined and cultured. *Adab*, in this sense, refers to secular knowledge based on disciplines like poetry, history, geography,

³ Al-Qalqashandī, Aḥmad b. 'Alī, *Ṣubḥ al-a'shā fī ṣinā'at al-inshā'*, ed. Muḥammad Ḥusayn Shams al-Dīn, Dār al-Fikr (Beirut 1987) 1.31.

⁴ Ibn Qutayba, Abū Muḥammad 'Abd Allāh b. Muslim (828-889), *Adab al-kātib*, ed. Muḥammad al-Dallī, Mu'assasat al-Risāla (Beirut 1986).

⁵ F. Gabrieli, "Adab," in: H.A.R. Gibb, J.H. Kramers, E. Lévi-Provencal, J. Schacht (eds.), *The Encyclopaedia of Islam. New Edition*. (Leiden 1986) 1.175.

rhetoric, grammar and metrics: the humanities, in short. This knowledge was collected in special works. Some of these were encyclopaedic and comprehensive, dealing with a wide range of subjects, whereas others were more specific, focusing on one domain of knowledge. As these works present their subject-matter in a descriptive manner, and do not have a clear practical application, I call this type of *adab* work descriptive.

The other sense given to the word *adab* was that of "refinement and urbanity as opposed to rural and Bedouin uncouthness."⁶ Treatises on the etiquette of eating, drinking, dressing and conversation also defined their subject-matter as *adab*. The treatises of this type are more concerned with giving rules and guidelines for correct and cultured behaviour than with presenting interesting information. They tend to be more ethical in character, regardless of whether they are guidelines for the cultured Muslim in general or for specific social or professional groups. This second type of *adab* works can therefore be classified as prescriptive. The *adab al-kātib* works, the manuals for the chancery scribe, form part of this second type.

Like most Arabic works the *Ṣubḥ al-a'shā* begins with a prologue (*khuṭba*),⁷ containing among other things a table of contents. This is in fact a short summary of the complete work. The main body of the work is divided into an introduction,⁸ ten sections (*maqālat*) and an epilogue. The first *maqāla*⁹ discusses general skills and disciplines such as history, geography, grammar and metrics. These are indispensable for the clerk, because they belong to the general intellectual and cultural baggage of the ideal scribe. The second *maqāla*¹⁰ concerns historical information and peculiarities of the land and the people of the Mamlūk empire and the empires surrounding it. The third *maqāla*¹¹ is an introduction to the more technical aspects of the art of composing documents and explains the technical terms associated with it. The main part of the work,

⁶ Gabrieli, "Adab" (as in n.5), 175.

⁷ Al-Qalqashandī, *Ṣubḥ al-a'shā* (as in n.3) 1.29-60.

⁸ Al-Qalqashandī, *Ṣubḥ al-a'shā* (as in n.3) 1.61-174.

⁹ Al-Qalqashandī, *Ṣubḥ al-a'shā* (as in n.3) 1.175-3.227.

¹⁰ Al-Qalqashandī, *Ṣubḥ al-a'shā* (as in n.3) 3.228-5.398.

¹¹ Al-Qalqashandī, *Ṣubḥ al-a'shā* (as in n.3) 5.399-6.262.

the fourth through ninth *maqāla*,¹² contains information on specific genres of official documents illustrated by examples. The relatively small tenth *maqāla*¹³ discusses other types of writing, not connected with secretarial writing. The epilogue,¹⁴ finally, gives a short survey of activities connected with the chancery, but not related to the composing of documents.

The *Ṣubḥ al-aʿshā* combines practical information for the profession of scribe with the encyclopaedic information regarded as part of his culture. Hence it can be labelled as a comprehensive *adab al-kātib* treatise, in which the genre of the descriptive comprehensive treatises by, for example, al-Jāḥiẓ¹⁵ or al-Nuwayrī¹⁶ merge with that of the specific prescriptive treatises designed for the clerk such as, for example, the work written by Ibn Qutayba.

The *Ṣubḥ al-aʿshā* contains a wealth of information. That it was meant as a work of reference can be inferred from its structure and organisation and from the use of certain techniques that facilitated the retrieval of specific information. By focusing on one specific instance, I intend to show how the work was structured and organised and what techniques the author used to make his work "searchable."

Snow

It is something which descends from the air, [looking] like carded cotton. It falls on the mountains and the surface of the earth. Then the sun melts those parts of it that experience intense warmth. In specific places in the high mountains, [that is] in the cold places, it remains the whole year round. The physicians have mentioned that it is steam that ascends from the earth to the air, like rain ascends, which is then hit by intense cold before it turns into drops. Then it falls gradually in fine particles and it thickens on the earth, when it falls down on it. It is characterised by intense coldness and intense whiteness. It will be discussed in the epilogue of this book because of its transport from

¹² Al-Qalqashandī, *Ṣubḥ al-aʿshā* (as in n.3) 6.263-14.123.

¹³ Al-Qalqashandī, *Ṣubḥ al-aʿshā* (as in n.3) 14.124-410.

¹⁴ Al-Qalqashandī, *Ṣubḥ al-aʿshā* (as in n.3) 14.411-451.

¹⁵ Al-Jāḥiẓ, Abū ʿUthmān ʿAmr b. Baḥr (776(?)-868/869), *Kitāb al-ḥayawān*, ed. ʿAbd al-Salām Muḥammad Ḥārūn, Dār al-Jil (Beirut 1938-1939) 8 vols.

¹⁶ Al-Nuwayrī, Shihāb al-Dīn Aḥmad b. ʿAbd al-Wahhāb (1279-1333), *Nihāyat al-arab fī funūn al-adab*, Dār al-Kutub (Cairo 1942) 31 vols.

Syria to the land of Egypt, God the Exalted willing.¹⁷

Regarding this example, two questions suggest themselves. First, why is this information relevant for the intended readership? In other words, why is this passage part of a manual for secretaries of the chancery? And secondly, how could the reader locate this information, in case he was interested in it? Which techniques were at his disposal to find any specific part of the text?

As we have seen, the *Ṣubḥ al-aʿshā* contains both encyclopaedic information that is regarded as indispensable for a clerk and deals with the composing of official documents. At first sight it is not clear why the description of snow belongs to the knowledge indispensable for the clerk. Fortunately, al-Qalqashandī explains for almost every part of his text why it is considered useful for his intended readership. Snow is discussed in the first *maqāla* among the phenomena which a clerk should be able to describe, and this discussion is already announced in the introduction to this *maqāla*. Here al-Qalqashandī gives a summary of the subjects he intends to deal with and argues that a clerk should be familiar with the technical terms of all disciplines and the description of numerous phenomena in order to be able to write letters to representatives of each social group and discipline.¹⁸ This requires the clerk to be a walking and talking encyclopaedia, familiar with a wide variety of subjects. Further, there is a specific reason for the clerk's required familiarity with snow: it was transported by boats and camels from Syria to Egypt. For every transport by land or sea the chancery had to write a receipt.¹⁹

Having established the relevance of this information for the scribe, we will now concentrate on the second question, namely, how could the average scribe find his way in this voluminous work. In order to answer this question I will analyse the work's structure and organisation and try to identify the methods used by the author to make his work "searchable." Such an analysis may also shed light on the precise function and ways of using the *Ṣubḥ al-aʿshā* as well as on the existence of consultation literacy in Arabic literary history.

¹⁷ Al-Qalqashandī, *Ṣubḥ al-aʿshā* (as in n.3) 2.192.

¹⁸ Al-Qalqashandī, *Ṣubḥ al-aʿshā* (as in n.3) 1.181-182.

¹⁹ Al-Qalqashandī, *Ṣubḥ al-aʿshā* (as in n.3) 14.440-444.

My research in this domain has been inspired by recent research on the western Middle Ages. Medievalists such as Mostert, Rouse and Rouse, and Schmitt,²⁰ have suggested that in thirteenth-century Europe attitudes towards written texts changed, and that these changes inaugurated a new phase in literacy. These new attitudes are reflected in a different organisation of complex written texts. Whereas previously such texts were presented as if they were meant to be read from cover to cover, and were organised in such a way as to facilitate their memorisation, the new organisation was meant to make these texts "searchable" for information with the help of specific techniques, such as divisions, tables of contents, arrangements in lay-out and reference symbols. This new attitude towards texts, referred to as consultation literacy, was the result of a change in attitude towards knowledge in general and reflected changes in the ways of thinking. Studying the structure and organisation of written texts therefore may give us more precise information on the function and use of these texts. These findings inspired me to study the function of Arabic *adab* works in general and the *Ṣubḥ al-aʿshā* in particular from a new angle.

The analysis of the organisation and structure of the *Ṣubḥ al-aʿshā*, resulted in the identification of a number of techniques applied by al-Qalqashandi to make his work "searchable." These techniques fall under four general headings, namely formal arrangements, arrangements as to contents, arrangements in lay-out and auxiliary texts.

A. Formal Arrangements

The formal arrangements are the divisions of the work. These are of two kinds:

1. Hierarchical divisions in books, chapters, sections etc.
2. Horizontal divisions of subjects by numeration.

B. Arrangements as to contents

The following arrangements can be distinguished:

- I. The sequence of the subjects discussed in the various divisions and in the work as a whole. They include:
 1. Chronological order.
 2. Geographical order.

²⁰ See the literature mentioned in n.2.

3. Order according to discipline.
4. Hierarchical order.
5. Order according to religion.

II. System of references

C. Arrangements in lay-out

To these arrangements belong all the principles in the lay-out of a manuscript. These principles are:

1. Running headlines.
2. Size of letters.
3. Use of colour.
4. Spacing.

D. Auxiliary Texts

Table of chapters or contents.

The quantity and quality of these techniques of retrieval in a certain work are an indication of the way in which this work could be employed by its readers, i.e. whether or not such a work could be regarded as a work of reference. When comparing the *Ṣubḥ al-a'shā* with earlier *adab* works, we can conclude that it did not employ any novel techniques, but that the frequency and intensity of their use was much higher than in the earlier *adab* works.

Let us now return to the example of the description of snow and examine the techniques of retrieval the reader has at his disposal to locate this specific part of the text. Suppose a person wants to learn about snow and knows the *Ṣubḥ al-a'shā* contains information about it. How would he be able to retrieve such information? First of all he would look at the table of contents. This mentions the description of phenomena, but no specific attention is paid to snow. However, there are two more ways of going about it. First, the systematic arrangements of the text and its divisions and subdivisions, and, secondly, the system of references.

The section on snow has its own heading in the hierarchical structure. Its position is shown in the following outline:

maqāla 1 (Disciplines indispensable for the chancellor)
containing 2 *abwāb*

bāb 1 (General disciplines)
containing 3 *fuṣūl*

faṣl 2 (Disciplines necessary for the writing of docu-

ments)

containing 3 *aṭrāf*

ṭaraf 2 (Description of phenomena)

containing 10 *anwā'*

naw' 9 (Phenomena between the higher spheres
and the earth)

containing 12 *aṣnāf*

ṣanf 6 (Description of snow)

Thus the information on snow forms part of the first *maqāla*, in which al-Qalqashandī discusses the disciplines of which knowledge is indispensable for the clerk. At first sight it is not clear why the description of snow should be part of this *maqāla*. The titles and contents of the third through tenth *maqālāt* refer to technical and specialised aspects of the various kinds of documents emanating from the chancery, whereas the first and second *maqālāt* contain subjects of a more general character. The author might have chosen to describe snow when discussing the drawing up of receipts for goods received from Syria. This he chose not to do, considering knowledge of snow to be part of the scribe's general culture. The location of the description of snow in the first *maqāla* instead of the second might be due to the more historical character of the second *maqāla* whereas the first *maqāla* has a more general character. This first *maqāla* is divided into two *abwāb*, the first dealing with the general disciplines, the second with the technical aspects of writing. Our example is part of the first chapter or *bāb*. This chapter, is divided into three sub-chapters (*faṣl*, pl. *fusūl*); the first gives a general outline of the complete chapter, the second, of which our example is a part, deals with the disciplines the clerk needs while writing documents, whereas the third concerns the chronology and calendars. Our *faṣl* contains three further divisions (*ṭaraf*, pl. *aṭrāf*), dealing subsequently with the intellectual tools for the clerk, such as knowledge of languages, grammar, Qurān and *ḥadīth*, the description of phenomena (of which snow is part), and semantics. The *ṭaraf* on the description of phenomena is further divided into ten kinds of descriptions in which a logical sequence is followed. First the human body is described, then the many aspects necessary to

describe man (mainly kings), such as the animals on which he rides, the animals that he hunts, the gems that he wears and the attributes of his outfit. Al-Qalqashandī proceeds with the description of the bodies of the higher spheres, the stars, followed by the description of the phenomena which can be found between the higher spheres and the earth, and he concludes with earthly phenomena, such as mountains and plants. The description of snow is part of the ninth kind (*nawʿ*), which deals with the phenomena between heaven and earth. The sections within this *nawʿ* are horizontally divided by means of ordinal numeration, with each weather condition being given its own heading in the hierarchical structure. Snow is described as the sixth section (*ṣanf*), preceded by wind, clouds, thunder, lightning, rain, and followed by hail, the rainbow, the halo, heat, cold and dust.

In two fifteenth-century manuscripts of the *Ṣubḥ al-aʿshā*²¹ the indications of the various levels of the hierarchical structure are distinguished from the body of the text by means of colours, spacing and different sizes of letters. Each *maqāla* with its ordinal number is indicated by triple-size letters and spacing, whereas the letters of the word *bāb* and its appropriate number are double size and bold. All the other titles of the hierarchical levels are bold, double size, red-coloured, or have a combination of these. It is clear that our imaginary reader, knowing that the text contains relevant information on the description of snow, can use the systematic divisions and subdivisions of the text to locate this information.

It can also be traced by means of a system of references. These are of two kinds. First, at the beginning of any *maqāla*, al-Qalqashandī mentions which topics he will discuss. Our example, the description of snow, is announced in the introduction to the first *maqāla*, where al-Qalqashandī deals with the question of why the information is relevant. Secondly, he also uses cross-references, usually mentioning, whenever he deals with a topic, the places where additional information on that topic is given. Thus the short description of snow that we have quoted is completed by the sentence:

²¹ The National Library (*Dār al-Kutub*) in Cairo contains two fifteenth century manuscripts of the *Ṣubḥ al-aʿshā*: 1) *adab ṭalʿat* 4745, dated 1412 A.D.; 2) *adab* 1519, dated 1484/1485 A.D.

It will be discussed in the epilogue of this book because of its transport from Syria to the land of Egypt, God the Exalted willing.²²

When we look up this part in the epilogue, we find a separate chapter (*bāb*) on the transport of snow from Syria to the palaces in Cairo.

The central question of this paper was: What was the function of a text such as the *Ṣubḥ al-aʿshā* and how was it used? In view of the arrangement of the information, the existence of an auxiliary text, in the form of a table of contents, and the system of references, we must conclude that the *Ṣubḥ al-aʿshā* was used as a manual, a work of reference, to be consulted whenever one needed information on a particular topic. It may therefore be considered to reflect the existence of "consultation literacy" in Arabic literary culture around A.D. 1400. Comparison with other *adab*-works shows that we may assume consultation literacy to have existed already before the days of al-Qalqashandī. Whether in Arabic literacy, as in the case of Occidental literacy, it will be possible to suggest a specific century as being especially important for the development and dissemination of consultation tools, is a question which lies outside the scope of this paper. I hope to have shown by discussing the *Ṣubḥ al-aʿshā* that this kind of question may be profitably pursued in the future, promising new insights into the development of Arabic literacy.

²² Al-Qalqashandī, *Ṣubḥ al-aʿshā* (as in n.3) 2.192.

CATALOGUING SUPERSTITION: A PARADIGMATIC SHIFT IN THE ART OF KNOWING THE FUTURE

JAN R. VEENSTRA

Knowledge is power - BACON

When in 1393 king Charles VI of France succumbed once more to one of his temporary fits of insanity for which no physician could provide a cure, the members of his court, desperately seeking a remedy for the afflictions of their monarch, had recourse to one of the more drastic as well as controversial means of the age; they called in a sorcerer. The story is recounted in the chronicle of the anonymous monk of Saint-Denis¹ who in very depreciatory terms gives a description of this magician from Guienne, named Arnaud Guillaume, who claimed to be able to cure the king with a single word. He was a very impudent man with a vicious appearance, writes the monk of Saint-Denis. He was commonly dressed, rough, emaciated, leading a solitary life. He always carried a book with him, which he called *Smagorad*, and which gave him, so he claimed, absolute power over the four elements and all things that were made up from these elements. He also claimed to have perfect knowledge of all the planets, and if there were one planet with a particularly malign influence, he was able to make another planet appear unknown to the astrologers, which would have a contrary influence so that the former would be neutralised. This remarkable book, this “mother of all pre-modern encyclopaedias” with its tremendous theoretical and theurgical claims, was originally given, the magician explained, by God to Adam. Adam had mourned the death of his son Abel for a whole century when he saw an angel of the Lord appear who gave him the book telling him he would derive consolation from it as well as an effective cure for original sin. He would be restored to his original splendour and would gain

¹ *Chronique du religieux de Saint-Denys*, ed. M.L. Bellaguet (Paris 1840) II, 88-91.

command over the stars.² He would come up with many more of these ridiculous stories, the monk of Saint-Denis observes, but eventually, when this charlatan proved quite impotent in the face of royal insanity, he was rebuked for his lies and dismissed.

This story is an interesting one. On the one hand it draws our attention to the position of the magician in late medieval court life, and on the other it briefly dwells on a particular kind of astrological knowledge that is somehow different from that of ordinary astrologers; different, that is, in the sense of "higher," in the sense of knowing the stars and having power over them. What kind of a person was he to make such bold claims? The reputation of these magicians had been gradually increasing ever since important textbooks on astrology, alchemy, geomancy, and other magical arts had been introduced into the Latin West from Arabic sources. Though many charlatans like Arnaud Guillaume catered for the superstitious needs of medieval courtiers, their magical craft was not simply the remnant of popular superstitions or pagan folklore. In some sense they were the precursors of the Renaissance *magus*, who would claim that man is the centre and the highest purpose of the universe, with many endowments at his disposal, including natural and demonic magic.³ One may recall that Pico della Mirandola's eulogy on the dignity of man, for instance, strongly opposed the medieval emphasis on man's frailty and his incapacity to raise himself to the level of divinity. A similar countermovement can be observed in the claims our sorcerer makes regarding his mysterious book (at least, if we may trust the account of the monk of Saint-

² This highly elusive book *Smagorad* seems to bear some resemblance to a Jewish book of magic called *Sefer Raziel* (partly attributed to rabbi Eleazar of Worms, thirteenth century). *Raziel* ("secret of God") was the name of the angel who gave the book to Adam. He was also the legendary author of this grimoire "wherein all celestial and earthly knowledge is set down." Printed in Amsterdam in 1701, the *Sefer Raziel* is essentially a book replete with spells, mystical names, magical symbols and amulets. See: Gustav Davidson, *A Dictionary of Angels* (New York 1971) 242-243; Joshua Trachtenberg, *Jewish Magic and Superstition: A Study in Folk Religion* (New York 1970) 76, 92ff.

³ For a brief characterisation of the anthropocentric universe according to the magical world view, see: Jeffrey Burton Russell, *Witchcraft in the Middle Ages* (Ithaca 1972) 5-6. For court magicians, the Arabic background of magic, and the Renaissance *magus*, see: Richard Kieckhefer, *Magic in the Middle Ages* (Cambridge 1992) 96-100, 116-150.

Denis). The text and the "arts" it describes are supposed to be the antidote to original sin; in other words, its knowledge signals the restoration of man and the redundancy of Christ. Though very few magicians would openly subscribe to this last point, they would not dream of discrediting the value of their "quaint and curious volumes of forgotten lore."

What made this magical knowledge so special? Why was it held in such high regard, not only by the magicians, but also by the courts, and, occasionally, even the Church?

Perhaps it was all due to a misunderstanding. In one of his essays, the Italian historian Carlo Ginzburg⁴ traced the consequences of a misinterpretation of a small verse from the Bible. In his letter to the Romans St. Paul imparts to his readers a small piece of advice: "Be not high-minded, but fear,"⁵ he says, thereby juxtaposing two moral categories: pride and humility. The injunction was translated by St. Jerome into: *noli altum sapere, sed time*. The Vulgate phrase *altum sapere* denotes a very literal kind of high-mindedness, and it did not take long before the phrase was misunderstood as conveying an intellectual rather than a moral meaning. St. Ambrose, for instance, wrote that it is better to fear than to know the future, for after all the Bible said so: *noli alta sapere*. Except for the odd Greek-reading heretic, Latin Christianity for the following millennium would accept St. Jerome's rendering as God's way of imposing limits on man's cognitive aspirations. It was only with humanists such as Lorenzo Valla and Erasmus that St. Paul's original meaning would be rehabilitated. But until then the verse from Scripture would be used to check human curiosity and demarcate a whole area of "high things," *alta*, things beyond ken, as an area of forbidden knowledge. Characteristically these high and forbidden things (truly "top-secret") neatly fitted the scheme of the tripartite reality the medieval mind doted on. Thus there were the secrets of Nature, of God and of politics: the *arcana naturae*, the *arcana dei*, and the *arcana imperii*. Needless to say, these secrets were very convenient in discouraging original thought and in

⁴ Carlo Ginzburg, "The High and the Low: The Theme of Forbidden Knowledge in the Sixteenth and Seventeenth Centuries," in: *Clues, Myths, and the Historical Method* (Baltimore 1989) 60-76.

⁵ Romans 11:20. The Greek text reads μή ὑψηλοφρόνει, ἀλλὰ φοβοῦ.

consolidating ecclesiastical and secular authority as well as the Aristotelian-Ptolemaic view of the cosmos.

But St. Paul's injunction, quoted more often than not, not only functioned as a deterrent; it also worked as an appetiser. The apostle had already broached the theme of forbidden knowledge when he spoke of being "caught up into paradise," and of hearing "unspeakable words, which it is not lawful for a man to utter" (II Cor. 12:1-6). But even though early Christian esoteric traditions (of which this text from Corinthians appears to be a trace), being at odds with the very essence of revealed religion, would soon become obsolete,⁶ their attraction would not. The prohibition of the pursuit of things beyond ken implicitly affirmed the existence of these things, and, like many a prohibition, it turned its object into a delectable though forbidden fruit, which was begging to be picked by magicians and charlatans like Arnaud Guillaume. The mind that dared aspire to know these high secrets, such as the subtle trappings of predestination or the metalogics of how three can be one in Trinitarian theology, or simply to know the future (to mention a few instances of the *arcana dei*), had to be supernaturally gifted, or at least supernaturally informed. And this is precisely what the theologians and philosophers of the later Middle Ages tried to emphasise and to refute. If this knowledge did not come from divine inspiration, as in prophecy, it could not strictly speaking be considered supernatural. It would, in that case, either fall entirely within the bounds of natural reason or, if it exceeded human abilities, stem from communications by demons, who were unhampered by the frailties and the limitations of the human constitution, but whose knowledge, if not deceitful, was still restricted to certain natural confines.

Predicting the future, or divination, is one of man's perennial preoccupations. In a very famous essay on historical methodology,⁷ Ginzburg demonstrates how endemic it actually is by discussing it as an important epistemological model, perhaps the oldest known to

⁶ See G. Stroumsa, *Hidden Wisdom: Esoteric Traditions and the Roots of Christian Mysticism* (Leiden 1996) 1-9. The author shows how Christian esotericism was made redundant in late antiquity and was replaced by mysticism. "In a revealed religion which acknowledges the logical implications of its own presuppositions, religious truth was no longer hidden" (9).

⁷ Carlo Ginzburg, "Clues: Roots of an Evidential Paradigm," in: *Clues* (as in n.4) 96-125, esp. 102-105.

man. He makes a very interesting comparison between hunting and divination. Man has been a hunter for thousands of years, he writes, and one of the most important techniques to capture prey is the ability to read and interpret traces, to infer from prints in the soil, tufts of hair, smells, broken branches, excrement and what have you, the existence and whereabouts of animals that are not or no longer present at the moment of inquiry. Likewise the diviners, such as the ancient Mesopotamians, tried to piece together in their prognostications future states of affairs and the particulars of people's fates by examining traces such as the entrails of animals, physical reflexes, the flights of birds, the motions of the stars and so on. Both disciplines investigate traces that are considered to be signs or symptoms of a greater object of knowledge that is absent and to which the hunter or diviner seeks to attain. Ginzburg explains that this evidential, divinatory or conjectural paradigm, as he calls it, is present also in other disciplines in the ancient civilisations of Mesopotamia and Greece such as law and medicine; the former, since it deals with the analysis of concrete cases, the latter because it analyses symptoms. The relationship between these disciplines was such that from time to time the distinctions became blurred and, for example, symptom-based medical diagnoses occurred in treatises on divination. Indeed, perhaps we should not point at the "blurring" (which is an anachronism), but rather at the absence of strictly formal distinctions, since in the Middle Ages astrology could be used for medical purposes as well as for predicting people's fortunes (though the latter was severely criticised by the Church).

This epistemological model that Ginzburg outlines, in which the whole is inferred from the examination of the part, or the cause from the examination of its effect, may well be the backbone of the divinatory craft, but it does not seem to accord very well with the knowledge-claims of the sorcerer in our example, who in a presumptuous sweep translates knowledge in a book into power over the stars and the four elements. Of course, he can do this because his magic is strongly conditioned by Christian ideas on knowledge and power. Since the knowledge in his book (a kind of *altum sapere*) repairs original sin, and therefore belongs to the "high things," forbidden to ordinary mortals, the fruits of that knowledge

can be reputed truly supernatural. Our sorcerer's craft is not based on an evidential paradigm, and this is not because divination does not belong to his trade, for it does. The title of his book *Smagorad* refers to the emerald, a precious stone first and foremost famed for its divinatory virtues,⁸ and we can also see him contending with astrologers in predicting and repairing malign celestial influences. The main reason why the divinatory paradigm is absent, is that his (imagined) craft is more the result than the object of the theological critique of magic and divination. It is the change that this critique has wrought in the divinatory paradigm and in the perceived nature of divination that I propose to examine presently.

The fact that divination (if we follow Ginzburg's cue) was ever since its inception based on an evidential paradigm has caused an unbounded proliferation of this craft in a variety of forms and practices. Any later systematisations, distinctions and classifications were simply attempts to organise a craft that was essentially casuistic, because anything could be a sign or symptom of anything else, and in the absence of general principles each case had to be examined separately. In perhaps the most famous text in antiquity on divination, Cicero's *De divinatione*,⁹ we can find this friction between classifications and concrete examples, but even more significantly we find an important piece of sustained philosophical criticism of the art of divination. The success of this criticism relies on two important steps: firstly, divination is firmly embedded in a context of Stoic philosophy, according to which heaven and earth are caught in a web of "sympathetic threads," a web of natural connections, so that by examining one occurrence it is possible to predict another; secondly, divination is criticised by examining the relationship between the signifier and the signified (to use semiotic terms). If this relationship is entirely arbitrary, how is divination possible? After all, if chance occurrences have no knowable cause, foreknowledge is impossible. If this relationship is determined, then what is the purpose of divination? It is no good knowing the future if you cannot change it. Cicero's main reason, of course, for adopt-

⁸ George F. Kunz, *The Curious Lore of Precious Stones* (Philadelphia 1913) 76-79.

⁹ Cicero, *De senectute, De amicitia, De divinatione*, ed. and transl. by William A. Falconer, Loeb (Cambridge, Mass. 1979).

ing this line of criticism is his concern for moral responsibility and man's freedom of choice, which are jeopardised in the context of determinism. But it is important to notice that this determinism is essentially the result of the first step, of imposing a philosophical framework on the divinatory paradigm. Ginzburg has already noted that more prestigious and more successful rival epistemological models, such as Platonism and in its wake Aristotelianism, would eventually gain the upper hand. And this is what we see happening in the Middle Ages when these rival models were adopted and adapted by Latin Christianity. The Christian theologians, equally, if not more so, concerned with moral responsibility, God's justice in rewards and punishments and man's free choice, rebuked divination and astrology on much the same grounds as Cicero. Yet they lacked the irony and the witticisms of the Stoic sage and on the whole took a far more grim and serious view of the matter. Unlike Cicero they were not interested simply in public conduct and political stability, but in righteousness of conscience and the orthodox values of Christianity. Scripture explicitly forbade all divination and the devil was soon discovered as the instigator of human inquisitiveness concerning the future.

Like Cicero with his Stoicism, Christianity also imposed a conceptual framework on the art of divination, in an attempt to rationalise the relationship between signifiers and signifieds and to criticise the various forms of divination. One of the two pillars of that frame was the body of classical philosophy with a special emphasis on the doctrine of causality. But on top of that Christianity added something entirely unknown to Cicero, namely a demonology that revealed that all divination was the devil's work. This demonology was essentially derived from St. Augustine,¹⁰ who explained how demons through their superior mental capacities and the swiftness that their aerial bodies afforded them, could study the conditions of the air, the celestial influences on the sublunar regions, and most important of all, the natural inclinations of human beings. Through their superior knowledge they could make adequate forecasts of whatever was about to happen. And in addition to this they could also affect the human imagination and thus deceive man into believing them, though over man's will and reason they had no power.

¹⁰ St. Augustine, *De divinatione daemonum* (PL 40, 581-592).

The impact of this demonology on the divinatory paradigm can be clearly seen from the ways in which Christian authors dealt with magic and divination. From classical antiquity the Christian writers inherited a small catalogue of divinatory practices and though in the course of the Middle Ages soothsaying and magic must have developed in many ways, the small catalogue remained almost unaltered from Isidore of Seville to Thomas Aquinas and afterwards. The great change that occurred during the Middle Ages did not concern the items as such, but rather the organisation of the items on the list, as will become clear from a brief comparison between Isidore and Thomas Aquinas.

The chapter on magic in Isidore's *Etymologies*¹¹ contains a modest list of names whose only relationship consists in the fact that they are magical arts and that they are taught by demons. The list includes *magi* (magicians), *necromantii* (diviners who consult the dead), *geomantia*, *hydromantia*, *aeromantia*, *pyromantia* (divination by means of the four elements earth, water, air and fire), *incantatores* (those who use spells and incantations), *arioli* (diviners who practice their craft worshipping in front of the altars of their idols), *aruspices* (diviners who consult the entrails of animals), *augures* (who inspect the flight and song of birds), *pythones* (related to the Delphic Pythia; soothsayers who are possessed by a divining spirit), *astrologi*, *genethliaci*, *mathematici* (three different names for astrologers), *sortilegi* (those who cast or draw lots) and *salisatores* (diviners who are a bit "jumpy," as the word indicates, and who base their prognostications on certain movements of the body). The list is contained in a chapter called *De magis*, which is part of the eighth book of the *Etymologies* dealing with various sects and heresies.

St. Isidore's list was copied time and again; and as one finds the items on the list widely disseminated in the works of Christian authors on superstition, one almost fears that the Church's polemic was a literary genre that had no immediate bearing on medieval realities.¹² By the time the list reached St. Thomas Aquinas¹³ only a

¹¹ *Etymologiae* 8.9 (PL 82, 310-314).

¹² Cf. Dieter Harmening, *Superstitio: Überlieferungs- und theoriegeschichtliche Untersuchungen zur kirchlich-theologischen Aberglaubensliteratur des Mittelalters* (Berlin 1979) 72.

few additions had been made, for it now included also the study of omens as a separate category, *chiromantia* (palmistry) and *spatulimantia* (divination based on the shoulder blade of an animal). The real innovation, of course, does not consist in these additional items, but in their organisation. Thomas grouped these names under the general heading of *divinatio*, which he subdivided into a type of divination that required the express invocation of demons and a type in which demons were not expressly invoked but in which they were involved nevertheless.¹⁴ *Divinatio* he made into a subcategory of idolatry (*idololatria*) which in turn was subsumed under *superstitio*. This subordination once and for all settled the relationship between divination and science. The cognitive claims of the divinatory practices were denied all legitimacy, because as a subspecies of idolatry they would always involve the interference of demons and hence demonic deception; and, above all, being a kind of idolatry, they tampered with the very essence of Christian monotheism.

Next to demonology there was also another aspect of great importance inherent in the framework that medieval theological authors imposed on the divinatory paradigm: namely, the doctrine of causality that we mentioned earlier. This doctrine was of the utmost importance for determining and outlining the conditions under which knowledge of the future was possible. A summary treatment of this topic will and can suffice.¹⁵ There are three aspects in the question of causality: (1) necessity; (2) semi-necessity (for want of a better phrase) and (3) contingency.

1. All celestial and stellar motions are the necessary effects of the First Cause. Since all heavenly bodies are immutable and eternal, they are perfectly disposed to receive the influence of the *Prima Causa* which in turn they pass on to the sublunar region. Knowing the future, in the sense of predicting celestial motion, is

¹³ Thomas Aquinas, *Summa theologiae* 2a2ae.92-95, esp. 2a2ae.95,3. See: *Summa theologiae* 40, Blackfriars ed. (London 1969).

¹⁴ According to *Summa theologiae* 2a2ae.95,3 *divinatio cum expressa invocatione daemonum* includes: *praestigium*, dreams, necromancy, *divinatio per pythones*, geomancy, hydromancy, aeromancy, pyromancy and aruspicy. *Divinatio absque expressa invocatione* includes: astrology, *augurium*, *auspicium*, omens, chiromancy, *spatulimantia* and *sortes*.

¹⁵ See: Aquinas, *Summa theologiae* 2a2ae.95,5.

possible, since there is no way in which the heavens can escape the primal impulse. It is therefore possible as well as legitimate to predict eclipses or the passing of comets, which is what astrologers and astronomers (both terms are common) do.

2. Celestial influences are communicated by the spheres to the sublunar region, which is the mutable and temporal world composed of the four elements. Due to the unruliness of these elements the influence from above is never perfectly received, so that the effects can never be predicted with certainty from the study of their causes. The best that can be hoped for is a Popperian approximation of the truth and it is only natural that astrologers will occasionally err in their predictions. Thus astrologers may make perfectly legitimate prognostications of the weather, of impending wars and pestilences, of social and religious upheavals and even the death of princes. Astrology can also help physicians in determining sickness and health of their patients, for celestial influence on the physical constitution of the world was a generally accepted premise in the Middle Ages. But what doctors and astrologers could not do was claim absolute certainty for their predictive knowledge.

3. There is a third category of things that is entirely free from causal necessity since it comprises things that are contingent or accidental. This category includes all acts of the human will and all contingent occurrences. No power in creation can foreknow these things; they are only known to God. No diviner, no demon, not even the devil can predict them; and if they claim they can, they lie.

These epistemological arguments that were derived from the doctrine of causality, coupled with the earlier-mentioned demonological arguments, formed the backbone of St. Thomas's critique of divination. St. Thomas radicalised the demonological intuitions of Isidore, whose list of magical practices contains promises of a knowledge (an *altum sapere*) that is forbidden, but perhaps not entirely unattainable. Another medieval author like Hugh of St. Victor was likewise aware of the demonological background of magic, but could not resist incorporating the little catalogue in his *Didascalicon*¹⁶ (though he dealt with it apart from philosophy and the sciences). Thus medieval authors were thoroughly preoccupied

¹⁶ Hugh of St. Victor, *The Didascalicon*, transl. by Jerome Taylor (New York 1991) 154-155.

with this traditional list of forbidden arts, labouring to define its position in relation to faith and science. The frame developed by St. Thomas may be seen as the crowning and final synthesis of these labours as it became a standard means, not simply of criticising, but even of perceiving magic and divination. It was through a conceptual frame like St. Thomas's that the literature against magic and soothsaying flourished. Of course, there were authors in the Middle Ages who did not share the Church's dislikes and fears, and believed in the efficacy of divination and magic, but these scientists and philosophers conceived this efficacy entirely in terms of causality: though they did not accept the demonological angle (at least not in this respect), they nevertheless abided by the limits the Church had set regarding causality.

Still, the claims of such authors do not resemble those of our court magician Arnaud Guillaume. Guillaume wilfully moves beyond the pale and deliberately challenges the theologians. He opposes the epistemological limitations by claiming to know everything and he opposes the demonological warnings by claiming to have power over everything (dangerously playing with the idea that he has made a pact with the devil). But curiously enough, as I hope to have demonstrated, he can only do so because of the shift effected by Christian theology in the divinatory paradigm. Guillaume's art is not the art of his magical forebears. The frame that criticised the forbidden arts, was also the frame that gave these arts their rationale, and that helped to define the conditions under which such arts could be believed to operate if not to exist. Theological interest in magic and divination may well have had a performative character,¹⁷ for it may have bred the very interest it sought to extirpate. Whether it was by unwittingly creating the irresistible lure of an *altum sapere*, or by transmitting the small catalogue of magical arts that circulated in medieval encyclopaedic compendia as a concise sum total of all forbidden means of acquiring knowledge, Christian authors made a significant contribution to the lofty claims of late medieval magicians such as the sorcerer from Guienne.

In conclusion; what happened to the evidential or divinatory paradigm that Ginzburg so carefully outlined? Of course, it is still with us in the art of detection (when we look for criminals), in po-

¹⁷ Harmening, *Superstitio* (as in n.12) 72-73.

etics (when we look for meaning), in psychoanalysis (when we look for both), to mention just a few examples; and, of course, in the study of history, Ginzburg's main point and most important motive for describing the evidential paradigm. But Dante had already anticipated Ginzburg's argument by several centuries. In the eighth pit of his *Inferno*¹⁸ diviners are tormented for their fraudulence. Their punishment consists in their heads being twisted round backwards on their bodies, so that they can no longer look ahead, but only look back. It is a bitter irony to find that soothsayers in life are to become historians in hell.

¹⁸ Dante, *La divina commedia, Inferno*, canto 20.

EPISTEMOLOGY OF ENCYCLOPAEDIC KNOWLEDGE

ENCYCLOPAEDIAS AND THE ART OF KNOWING EVERYTHING

JOHN NORTH

1. KNOWLEDGE OF ALL AND ALL OF KNOWLEDGE

My theme is the relationship between encyclopaedic texts and philosophical ideas about the limits of human knowledge—the sort of ideas that might have been held by their makers and their readers. This is all rather pretentious, to the extent that the encyclopaedic writers were often very unphilosophical folk; but looking at the question another way, at almost all stages of history the philosophers and the encyclopaedists were two overlapping social groups, so one ought to expect some sort of interplay of their ideas as to the nature of knowledge. Now it is quite clear that none of us is likely to take seriously any claim, tacit or otherwise, that an encyclopaedic work—let alone one from the Middle Ages—is a compilation of definitive, absolute, eternal, or exhaustive truth. Whether or not its maker actually claimed to be writing such a paragon of scholarship for all of posterity is another question. On the other hand, geometers wrote about straight lines without claiming to have ever drawn a perfect example, and clerics preached morality without claiming to have lived blameless lives, so what about *ideals*? Was there ever, or is there ever likely to have been, an ideal of potential encyclopaedic definitiveness or completeness, lurking in the background?

I could express such a historical question in two essentially different ways, one relating to the beliefs actually held by the encyclopaedists, the other referring to the background of their belief about the nature and limits of human knowledge. The first, a problem of contingent attitudes, is likely to be of greatest interest to most of you. As for the second problem, that of the philosophical *Zeitgeist* (the problem I shall be looking at more closely), it might even be thought somewhat bizarre, for I can hardly believe that there is any philosopher around today with a natural inclination—as opposed to a grant-generated inclination, or a congress-generated inclination—to investigate the epistemology of the encyclopaedia. In deference

to my colleagues' wishes, though, I will do my best to find one or two genuine problems here.

Perhaps in the past too, the idea would have seemed strange. We heard yesterday from Robert Fowler how the Greek term ἐγκυκλοπαιδεία was transformed in various subtle ways, and came to mean something like a complete circle of learning, of education, but that is certainly not the same as a complete circle of knowledge. Did anyone ever aim at the whole of knowledge? If I were to quote Thomas of Cantimpré's advertisement for his *De natura rerum*, for instance, to the effect that there is scarcely any Latin work with so much and such varied material compressed into a single volume¹ (a quotation you can no doubt cap many times over), you might point out that while it has all the modesty of a typical modern publisher's catalogue, it makes no pretence to an inclusion of everything. It is hard to believe that any scholar of importance, at any period of history, has seriously believed that a book containing all of human knowledge, *omne scibile*, could ever be written. (The Sophists might have said it, but they were not so much interested in knowledge as in what would carry the day in debate.) Long books, yes. Libraries of books even. But not *everything*. Indeed, anyone who wrote an encyclopaedia claiming that it contained all that was knowable and then went on to write something new—anything new—would presumably be indulging in self criticism. Any piece of writing must be selective—a problem to which I shall return—and so intrinsically incomplete, but as I said a moment ago, and as every good Aristotelian knew, there was a way round this limitation: one simply had to switch the discussion to one of *potential* completeness. Here is a subject on which a potentially infinite lecture can be given. I will try to impose limits on what I say, in a way so many encyclopaedists found themselves unable to do; but for those whose minds do not run along medieval lines, let me point out that for most medieval writers, to speak of potentiality was to imply a lack of perfection. It implied a contrast with God's perfection—and often in this case with God's absolute and complete knowledge. (I will return to this theme later.)

As a class, those who plan encyclopaedias have something in

¹ Lynn Thorndike, *History of Magic and Experimental Science* [New York 1923] 2.375.

common with stamp collectors: they cannot easily live with the idea of incompleteness. Roger Bacon, in emphasising the essential limits to human knowledge, was echoing Josephus when he said, in effect, that more is better. Josephus was reported as having marvelled at Solomon, wiser than even the Egyptians, and author of 4005 books. He “left no nature unknown or unexamined, but philosophised about them all, and excellently expounded his knowledge of their properties”—thus spake Bacon.² You might think that Pliny was a suitable prototype, until you recall that when, in the preface to his *Natural History*, he tells us that he aims to include everything, by this he means only “everything that the *Greeks* took to be the subject of encyclopaedia.” And we must not forget that his was only a natural history. When Vitruvius speaks of *all* branches of learning, it is likewise with reference to the Greek encyclopaedic tradition. In short, the tradition of what “everything” entailed was already hardening in Antiquity. Even those scholars in the Middle Ages for whom tradition and authority meant so much would have flatly denied that there was nothing more to knowledge than was to be found in the Greek educational round. No sane scholar would have gone so far as to claim that the Greeks had encapsulated all that man could learn. Alsted’s great *Encyclopaedia cursus philosophici* of 1608 was in a sense much more boastful when it claimed to cover everything that man can learn in this life on earth, since learning was by this time more broadly conceived. But still it is a claim concerning *learning*, and not potential *knowledge*.

The more we learn, the more we learn that we are ignorant. All of these scholars must have been acutely aware of their own shortcomings. Most must have known that they had not really mastered the subjects they were sketching, beyond the bare elements, at least. It is perhaps unfair to take Martianus Capella as typical, but in one respect he was so: he did not even consult most of the authorities he cited, and he carefully concealed from view the authorities he did actually use, which were the miserably sketchy compilations of his own time. Isidore’s style is different, in particular in its etymological pretensions, but again, his was hardly more than a compilation of decrepit Latin traditions. A poor beginning, this, for anyone wishing to prove the thesis that an encyclopaedia is

² See the Appendix below.

even ideally a compendium of all that is knowable. If the flame of hope, the belief in a potential completeness, was kept burning anywhere, it was not exactly open to view.

2. ORDER, GENERAL TRUTHS, AND CONFIDENCE IN HUMAN KNOWLEDGE

Medieval scholars did not use the word "encyclopaedia," or anything comparable to it, for the titles of their compendia of knowledge. It is true that catalogues occasionally refer to medieval works by that title, but then the incipit usually begins with the letter "a" and continues with something like *Abominatio. Contra abominationem et fastidium....* Such works are given the name "encyclopaedia" by the cataloguer often because they are *alphabetically* ordered gobbets of knowledge. And as far as I know, no epistemologist has ever based a theory of knowledge on the alphabet as such. (I must say I was not aware of the beautiful Coleridge quotation Robert Fowler gave us yesterday, or the debate centred on it, but I always did have a soft spot for Coleridge.)

Oddly enough, though, it is through its *ordering* function that an encyclopaedia often makes its strongest epistemological claims, even when order is not a very conspicuous quality of such works. The thirty-seven books of Pliny's *Natural History* have a rough classification imposed on the extraordinary miscellany of information and misinformation they contain, but their structural qualities are not very obvious. To discover a system in the work's 2493 chapters, drawn from well over 400 authors, requires genius of a sort perhaps better represented in this room than anywhere else in the world, at this moment, so my contribution to the solution is hardly needed. Of course, as its title indicates, much of it concerns Nature, but only in a very broad sense. It was not meant as a history, in a modern sense of the word, but paradoxically it does have a historical structure of sorts. Nature aside, it begins many of its numerous chapters with a description of the state of some or other aspect of civilisation in Pliny's own time, and then follows it back as far as possible, and ideally to its origins. My point is that Pliny, and all those other encyclopaedia writers who follow a similar historical pattern, are in a sense obviously aiming at a *sort* of completeness. They convey the sense, very often, of a *steady historical*

process at work in the cumulation of acquired knowledge. This idea of relentless progress is often taken to be at the heart of positivism—although I hasten to add that this is to misuse the word. (The positivist believes in the objectivity of facts, and believes also that only science gives valid knowledge of facts. This is an utterly inappropriate philosophical model to use of the Middle Ages or the ancient world, but it is true that people do often use the word “positivist” in the other sense.)

To return to Pliny: he is naïvely anxious to omit no fact of importance, and he might well have had the idea that his was a science of all that could in principle be known, a science of “the knowable”; but the knowledge that he actually purveys comes closer to completeness by virtue of something else, namely that moral and historical structuring. His “histories of ideas,” if that is not too strong a description, are often provided with a moral dimension, ostensibly because he is convinced of the degeneracy of contemporary civilisation. The effect of the structuring, however, is to give the material *generality*. The Middle Ages undoubtedly saw a steadily growing tendency to generalise, but that is only another way of saying that science was becoming more theoretical, more mature. Aquinas was apologetic about the fact that sacred doctrine deals with individual events and people—Abraham, Isaac, Jacob, and the rest—which seemed to deny it the status of a science; but he had his answer, as we shall see later. Encyclopaedias contain generalisations of many different sorts, and you might regard mine as a trivial point, but a person who makes generalisations of any sort is one stage nearer to having produced a “science of everything” than someone who simply lists numerous isolated facts. I am leaving this point deliberately vague, for it raises the question of what a general statement or proposition is, or does, or can do, for a compendium of knowledge.

I do not have to remind a meeting of medievalists of the debates centring on the nature of *universals*, but I have no wish to be side-tracked by this problem. Although there was much disagreement about the ontological status of universals, there was obvious agreement about the fact that universals function in such a way as to sanction the use of the word “all” and not just “some.”³ They

³ There were those who thought them to be some sort of second substance.

enlarge the scope of discourse. It is they that make it possible to acquire and purvey universal knowledge, in a series of conceptual (scientific) systems. One might imagine the encyclopaedists supposing—even if they did not speak in this way—that by a judicious use of generalisation they were getting closer to a knowledge of everything knowable.

Philosophers, then as now, discussed such questions freely and expertly, but a word of warning is called for here. Epistemology, the theory of human knowledge, has not always been the primary philosophical study, in the way it was in the time of Descartes and Locke, Hume and Kant, for example. It was not central to the philosophy of the Middle Ages—although that is not to say that it was then lacking in sophistication. For many scholastic writers, epistemology was chiefly seen as a necessary prelude to a study of theology, and you could not get more serious than that. In some cases theology had a reverse influence on the theory of knowledge itself. Henry of Ghent was only one—albeit one of the most famous—of the many philosophers who believed, within the tradition of Augustine, that human knowledge required divine illumination. Duns Scotus retorted that this view was intolerable, for it led to scepticism—the scepticism of the Academy, as he called it. I mention Duns because he is one of a breed of philosopher who preached that we could have certain and infallible knowledge about the physical world. (It had to be based on our knowledge of first principles, known in their own right, together with generalisations about our sense experiences.) Clearly, those who thought that some certainties are possible would have been better propagandists for what one might see as the encyclopaedic imperative of definitive knowledge.⁴

Others, like Roscellin, took them to be mere *legentes in voce* or even *flatus vocis*, the breath of the voice. For Aquinas they had real existence as creative ideas in God, and were in experienced reality only in existent things or in abstracted mental facts. For the Terminists they were only class names, perhaps no more than arbitrary signs.

⁴ Human understanding was by some—notably Aquinas—supposed to be cognition by intelligible species. For Ockham, all certain knowledge is based on “evident cognition.” Contingent affairs were known, he thought, by intuitive cognition, and he even thought that intuitive cognition of *nonexistents* was logically possible. This was his paradigm of certain knowledge—but before we try to turn

3. ALL THAT IS KNOWABLE AND DIVINE OMNISCIENCE

Certainty is not the same as completeness. That other quality prompts us to think rather of omniscience, a theological category used almost solely in discussions of God. If God were another person like ourselves, we might suppose that his being able to know everything means that we ourselves may in principle know everything, that is, that we are *potentially* omniscient. That might have seemed a reasonable argument to a simple-minded medieval theologian, using the plain language of scripture, but to the scholastic philosopher it would have sounded excessively naïve. The Platonists, for example, had made life difficult for the theologians by planting the seed of the idea that the highest being—the “Form of the Good” in Plato, or the “One” in Plotinus—was somehow beyond being, and so did not have knowledge in the ordinary sense.

Even that majority of Christian philosophers who insisted that God did have knowledge often said that his knowledge differs intrinsically from ours. The concept of knowledge, *scientia*, was found several meanings, and before asking about God’s knowledge it was necessary to decide which sort was under review. Natural philosophy perhaps came nearest to what we now take knowledge to be. It was a subject that proceeded along Aristotelian lines *rationaliter*, that is, it was supposed to be most in harmony with our natural way of knowing as rational beings. Mathematics was different, for it proceeded *disciplinabiliter*, as Aquinas said—taking the broad outline of his distinction from Aristotle still. And then comes metaphysics, which inquires into truth, not according to the mode of reason or learning, but *intellectualiter*, according to the mode of intellect. The first of these three was the core meaning of knowledge, demonstrative knowledge, and depended on one’s accepting both the premises of an argument and the validity of the

him into a pure rationalist we should note that he never claims that such cognition can be distinguished from mere belief, at least by any infallible sign. He was as conscious of sensory illusion as Descartes or Berkeley, and gave a highly sophisticated account of it. He did not allow it to lead him into sceptical conclusions, however, and even though his younger contemporary Nicolas of Autrecourt was not afraid to do so in writing, it was as an exercise in logic—one might even say he enjoyed playing with fire—and he was not prepared to go the whole way in his belief.

logical structure of the argument. It was often pointed out—for instance by Aquinas and by Ockham—that even this kind of knowledge cannot be assigned to God, for it is of the nature of an effect, whereas God is the first cause of everything.

What about other concepts of knowledge, that were less commonly formulated? What if it is a mental disposition? According to Ockham, for example, when we know something, we are in one mental state, and when we know its opposite we are in another mental state. Not so for God, for whom to know is not to be in a certain state. God cannot be said to have knowledge in this way, for a mental disposition is a mental quality, an accident, and no accidents inhere in God. Ockham actually followed Grosseteste in insisting paradoxically that God's knowing something and knowing its opposite are just the same. This is not so for us—and indeed any encyclopaedia writer who acted as though it were would get very bad reviews. There is little point in my setting out Ockham's argument for the thesis that God is indeed a knower, but that God's knowledge is identical with his essence. It certainly does not apply to the sort of knowledge that the encyclopaedia conveys. We are not a bit closer to a useful meaning for human omniscience, when we cannot decide on the nature of God's knowledge.

There is another sort of knowledge with a possible bearing on medieval views of God's omniscience. Does God not have concepts of things? If so, how does he conceptualise? And if God has concepts, what are they concepts of? The medieval discussion of this point was long and intricate. One important notion was that of God as a knower who thinks only of himself. This doctrine has an ancestry going back to Aristotle's idea of a *primum mobile*, an unmoved mover, considered as *thought*, eternally and actually thinking of itself. Averroes developed the idea, in explaining how God knows particular facts. He knows them conceptually; and this because he knows their cause, that is, he knows himself. Anyone holding such an opinion would quite naturally regard the sum total of all possible human knowledge as something to be reached through *theology*. God is all. God conceptualises the all, and so we can know God's creation through a study of God. The structure of knowledge will inevitably mirror that of God's mind, so it comes as no surprise to find encyclopaedias structured around God's cosmos,

and around the pattern of God's intervention in history.

How we can best hold up a mirror to God's mind is another question, but it is no accident that Aquinas drew a careful analogy between sacred doctrine and science, *sacra doctrina* and *scientia*.⁵ The analogy was a *tour de force* but it nurtured a potentially disastrous tendency that is well worth noting for our present purposes. Briefly, just as in science, according to Aristotle, there is a dialectical relationship between first principles (metaphysics) and the principles of the particular sciences (physics, etc.), and so on down to contingent facts, so, said Aquinas, there is a dialectical relationship between the principles of faith (written down in holy scripture) and the derived principles of sacred doctrine, Christian tradition. Why this is doubly important is that first it strengthens belief, by making it analogous to demonstrative science, but second it reminds us that when we accept what we would now call the *axioms* of the sciences—their highest-order principles—we are performing something that is in itself analogous to an act of faith. Perhaps this insistence on the role of belief in the acceptance of axioms reminds you of Isaiah 7:9, "Unless you believe you shall not understand"—*nisi credideritis non intelligetis*. Now this might all seem harmless enough, but I hope that you can appreciate the danger. Putting the question of religious belief to one side, we may say that it comes perilously close to making knowledge something that is *subject to human decisions*. Throughout the ages this conventionalist epistemology has proved very disturbing to all who believe in the objectivity of knowledge. Boethius, for example, was upset by it, and passed on his fears to the Middle Ages.⁶ Here it is enough that I draw attention to the problem. What is the point of writing an encyclopaedia for all eternity, our friends the encyclopaedists might have asked, if new conventions in the future can wipe out all our work?

⁵ *Dicendum sacram doctrinam scientiam esse. Summa Theologiae*, Ia.1, 2, responsio.

⁶ If, he argued, which concepts are generic and which specific depends on human convention (even in part), and if there are no universal things (as the Ockhamists later believed), then our ideas of genera and species would be "vain and false." Boethius' objection could be countered on the grounds that it made use of a primitive representational theory of meaning; and as for Ockham, he was in any case not a thorough-going conventionalist.

Before I leave the problem of God's omniscience, let me point out that the discussion was often part of a wider debate on prophecy, predestination and human responsibility. It is hardly relevant here to ask how different philosophers coped with the problem of how God could know things past, present and future without the future being predetermined. I will simply make two observations. First, that the Augustinian account was widely accepted: God's time is not our time. No one versed in this debate could possibly have thought that an encyclopaedia could contain future contingents, and in this sense *omne scibile*. But *if* someone were ever to have supposed that an encyclopaedia could emulate God in the sense of including all things knowable, even only potentially, then the encyclopaedia too would seem to have posed the same risks to human freedom as God's supposed foreknowledge was often thought to do. I know of no medieval philosopher who raised this matter in quite those terms, although something rather similar has been done in more recent times.

4. GRACE GIVEN KNOWLEDGE

Another theological dimension of knowledge concerns God's grace. It is affective as well as speculative. It fosters the love of God and is fostered by it.⁷ I have already noted that knowledge was not taken to be of a single type. In an often-neglected part of the *Summa Theologiae*, Aquinas distinguishes carefully between the knowledge appropriate to science and faith-knowledge. Science-knowledge shines with a hard, cool light on the mind. It is not theologically disengaged, for it can tell us such things about God as that he is the cause of everything, but it is the second sort of knowledge, faith-knowledge, that truly warms the heart, telling us that God saves, redeems, and loves. Unfortunately, it lacks its own language—we might say that love never had its Aristotle—so that metaphor and analogy are our only ways of discussing it. I will not pursue these modes of discussion, but merely draw attention to their importance for the Christian scholastic.

Aquinas has more to say about Christian theology with a bearing on my general theme, as I noted when speaking of his analogy be-

⁷ *Summa Theologiae*, Ia. 64, 1.

tween divine science and the more familiar sciences that work from axioms (premises recognised in the innate light of intelligence—for instance arithmetic—or premises recognised in the light of a higher science—for example optics). “In this second manner is Christian theology a science, for it flows from founts recognised in the light of a higher science, namely that belonging to God and the blessed.”⁸ I am repeating more or less what I said earlier, but in another connection. The point I am making now is a very simple one, namely that on this view no encyclopaedist could possibly purvey all knowledge, even in principle, without introducing the *scientia* belonging to God and the blessed. One’s only real hope was to join the throng of the blessed.

5. LIVING KNOWLEDGE, LAPIDARY KNOWLEDGE, PRACTICAL KNOWLEDGE, AND THE ORGANISATION OF KNOWLEDGE

Here, then, are a few examples of theories of knowledge, human and divine, and theories of divine omniscience, that the encyclopaedia crowd might have pondered as they assembled their materials. It should be painfully evident, though, that they do not exhaust the ordinary meaning of the word “knowledge.” Historically speaking, most encyclopaedias in history have leaned towards *theoretical* knowledge, implying a glaring limitation on their completeness. The long description of the nine liberal arts by the “most learned of the Romans,” Varro (116-127 B.C.) did at least include medicine and architecture, both of them *practical* arts that were destined to be dropped by Martianus Capella. Even Varro left out many other professional subjects—the visual arts, for example. The boundary between academic education and the acquisition of knowledge is not easy to define, but one of the besetting sins of western thinking has always been that of assuming that the acquisition of knowledge is primarily a theoretical matter—a question of “knowing that,” as the philosophers say—and that practice, “knowing how,” can safely be left out of the account, even left to lesser minds. Music, for example, as a part of the educational process, was treated chiefly as a theoretical subject. It was a study of the arithmetical principles of harmony, *musica* as against *cantus*, while the latter was taught in

⁸ *Summa Theologiae*, Ia. 1, 2, responsio.

the early medieval period chiefly by practice and memory. The fact that many talented popular musicians of the present century have almost no knowledge of conventional musical theory reminds us that we should not be too condescending about a kind of knowledge that, by its nature, cannot easily be put into text-books, or *a fortiori*, into encyclopaedias. And again, the very existence of practical knowledge, and its virtually ineffable character, puts a damper on the ambition to be complete. Of course one way round this problem is to define knowledge so as to exclude whatever is inconvenient, but I am trying to be honest—or as honest as history allows.

I hesitate to tread on your territory, but my impression is that from the sixteenth century onwards, encyclopaedia-makers were ever more inclined to concentrate on the systematic qualities, the inner logic, of large segments of knowledge, but that even then there remained an enormous gap between those who merely contemplated the sciences and those who felt an urge to discover them. Francis Bacon expresses this distinction in his *Novum organum*. This work would not normally be called an “encyclopaedia,” but it has one important encyclopaedic virtue in abundance, that is, the quality of universality. In a more obvious sense it is quite alien to the encyclopaedic norm, for it is a manual for *discovery*, not for the carving up and display of knowledge already discovered. In fact Bacon illustrates beautifully what we might see as the Achilles’ heel of the encyclopaedists, by reference to the Dogmatists—the purveyors of received knowledge—who extinguish inquiry by claiming that Nature is fully known. (They are no less pernicious than the Sceptics, he says, who claim that *nothing* can be known.) Dogmatic philosophy is useful for the duties of the Professorial chair, he writes in his preface, but *his* philosophy will be different, for it will have “utility and effects.” He advocates a policy of “live and let live,” however. “May each party have every blessing and happiness therein.”

It seems to me that even the most systematic of encyclopaedists tended to be contemplators and organisers, rather than discoverers. This passivity in their nature extends back through medieval writings that are at first sight reminiscent of Bacon’s, but that in reality are quite different. I would say that this trait is even to be found in Aristotle himself. I take second place to no one in my admiration

for Aristotle, who was a scientist of the first order, but he wrote so very much in the style of present-day analytical philosophy that he gave to most of the scholastic world a belief that contemplation and organisation were more important than what Bacon called “the Anticipation of Nature.” Bacon’s is a manual of scientific creativity that most, if not all, encyclopaedia writers would have thought incompatible with their lapidary objectives.

Christel Meier-Staubach spoke to us about the organisation of knowledge, and I shall not go over the same ground now. The most notable philosophical schemes had ancient roots. Thomas Aquinas’ views on the subject, for example, were given in his (unfinished) commentary on an ancient work, Boethius’ *De trinitate*, which points back even further, namely to Aristotle (*Posterior Analytics* I.2 and I.13). But there were structural schemes of other sorts, as we heard this morning, and even in Pliny a glimmer of logic occasionally shines through. We can extract from him, if not a theory of knowledge, at least a few ideas about the validation of knowledge, and since he was widely read and very frequently cited, his ideas rubbed off on many a medieval scholar. He repeatedly calls on experience, *experimentum*, when he wants support for some claim he has made, and we can hear echoes of his views in many places, for example in Roger Bacon. But rarely do we feel, as we read Pliny and his imitators, that we are in the presence of a truly ordered and scientific mind. Epistemologists with real blood in their veins will view the scene with a heavy heart. Pliny’s 20,000 facts (this is his own estimate) have a stunning effect in the worse sense of that word. With a sense of initial relief one might turn to Martianus Capella or Isidore of Seville, but very soon thereafter, the feeling sets in that one has left the frying pan for the fire. Putting all their entertaining allegory to one side, why did the compilers of encyclopaedias not leave their materials in the individual text-books from which they came? What did they add to knowledge? Did they do no more than provide a microcosm, for which the corresponding macrocosm is not the world but merely the world of learning? If so, was the encyclopaedia no more than a compact library, assembled in a uniform style? I know that there was at times a vigorous two-way trade,⁹ for instance that by which the *artes liberales* had their be-

⁹ There have been very many instances in more recent history where a long

ginnings, and I can imagine how my audience of bred-in-the-bone students of the encyclopaedia might respond. You might insist that *encyclopaedias are more than the sum of their parts*.

In what non-trivial ways can an encyclopaedia be more than the sum of its parts? This cannot be simply a question of covering the component parts of the work with a layer of, say, etymological icing—as does Isidore in his *Etymologies* (*Etymologiarum libri XX*). It is instructive to consider, though, what happens when Isidore—to continue with this example—quotes the poets and historians: he creates a bond between two different perspectives on knowledge. It is as though he is anticipating the critic of the Two Separate Cultures, or rather three or four or more cultures. I do not want to exaggerate here, but it should be obvious that in the very act of setting out to write a book about (in principle) everything, a person has to keep an ever-open mind to (potentially) everything, in a way common writers of monographs do not. This is one important facet of the encyclopaedic mentality. It has something in common with the mentality of philosophers who claim that everything is somehow related to everything else. We ought to try to discover what epistemological ambitions could have sustained it.

Consider Hrabanus Maurus, who almost exactly two centuries after Isidore did something not altogether different in character from what Isidore had done. He omitted many of the old references to classical antiquity and replaced them with scriptural references and quotations. In one sense, this marked a distinct decrease in the breadth of the knowledge he was purveying, but bringing God and his angels into a methodical and rationalised Christian encyclopaedia had an interesting consequence for the learning process. It allowed his readers to assist their learning by the use of familiar analogies. Examined in its parts, the work of Hrabanus is not very inspired, but considered as a whole it makes an important kind of synthesis possible, albeit tacitly. Its various titles hint at this: *De origine rerum*, *De natura rerum*, and *De universo*. It is presented to the reader as a mirror of the very cosmos, and this through its structural character, with God at its head. Admittedly the last few

encyclopaedia article has been abstracted and published separately as a text-book, but this will be difficult where the article was not written as a self contained monograph in the first place.

books tag along rather lamely, but the cosmological pattern had now been set for such writers to follow as Vincent de Beauvais (c.1190-c.1264), Thomas de Cantimpré (c.1210-c.1280), Brunetto Latini (1230-1294), Bartholomaeus Anglicus (*fl.*1220-40) and Bartholomew's imitator Pierre Bersuire (c.1290-c.1362).¹⁰

You have heard all about these things from other speakers, but consider for a moment how the cosmic structure has a bearing on the whole question of the epistemology of encyclopaedism—if that is not too pretentious an expression. It was of no great consequence that our writers were often behind the times, or had no pretensions to universality, or that much of their work better merits the title *compendium* than *encyclopedia*.¹¹ What did matter was that always in this scheme of things *God* be given his rightful place. Part of the reason for putting God at the head of the encyclopaedia was obvious: it was that God belongs first in all situations, just as in matters of learning theology has that position. I have already shown how this belief was later rationalised many times over, and given an epistemological edge, notably by Aquinas. Then after God comes the cosmic ordering. One may smile at Martianus Capella's inconsistency, or at his audacity, but he set a fashion in his attempt to provide the unity that he believed was inherent in the seven liberal arts, by the use of a series of largely cosmological images.

It is this claim to have caught the fleeting image of the cosmos as a whole through the use of cosmic images that seems to me to mark out the claim to universality that is tacit in the work of so many medieval encyclopaedists. It is as though they are saying "We cannot write down everything that is to be said about everything, but by giving our books the character of the All we are giving them

¹⁰ Roger Bacon also drew up a historical scheme, a genealogy of (scientific) knowledge from the time of the patriarchs to his own day. His ambition was to restore the purity of ancient knowledge, *prisca sapientia*. But this is not the same intellectual phenomenon as I am discussing when I talk of the cosmic image of knowledge.

¹¹ Thus Thomas of Cantimpré, modestly begs indulgence for his omissions, but feels that "there will scarcely be found among the Latins so much and so varied material compressed into a single volume." (See above, n.1) I imagine that Thomas is typical in trying simply to be true to Augustine's pious wish, as expressed in *On Christian Doctrine*, that there were available a single volume concerning the nature of things and the nature of animals.

a compensating universality.” There are other important analogies than this—of the cornucopia, the treasury, the library, the tree, and so forth—and some of them, especially the tree, have the same notion of a structuring of knowledge built into them; but none the less, they are all lacking in this characteristic of implied universality. One might object here that we really have no right to use Martianus’ work as a test case, for while it became regarded as an encyclopaedia it was not written as one, in our sense of the word—its scope was deliberately constrained. One might go further and object that the seven liberal arts lent themselves to this sort of treatment only because they covered a segment of human knowledge that had been hijacked by scholars of a mainly *philosophical* disposition. It was, after all, only a segment of all learning, whatever the cloistered few might have imagined. But it was the segment of learning that occupied centre-stage of the medieval university, and that held that important position long after. And it is in any case the cloistered few we are talking about at this, a congress of the cloistered few.

APPENDIX—BACON: HUMAN REASON ESSENTIALLY LIMITED

The overall tendency of knowledge during this entire history, according to Bacon, was one of decline, with the exception of short periods of reversal, in particular those brought about by Solomon, Aristotle and Avicenna. Bacon's overall plan does not concern me here, but one aspect of it does have a bearing on our theme, for it helped to set a fashion for crossing subject boundaries, just as the earlier use of classical poets and historians had done. Bacon's philosophical programme needed theology, and according to him a mathematical and scientific training could be invaluable to the Christian scholar. The same idea was seized upon by others, for example Ramón Lull and Thomas Bradwardine. Again and again we hear the same complaint, that an ignorance of the calendar, or astrology, or the other mathematical sciences, will place Christian clerics at a disadvantage, even arouse derision in a non-Christian audience. But the theological need for assistance from elsewhere goes far beyond the need to avoid derision: *human reason is essentially limited*, and any help it can get is to be welcome. Every valid source of knowledge is to be taken on board, whether from the hard sciences or from ancient authorities and the divine revelation that gave them their force in the first place. There was never any doubt expressed as to the thesis that the true prophets numbered among the men of highest and purest intellect: Aristotle, Avicenna, Averroes, even Ptolemy and many Islamic astrologers were often cited in support of the thesis. Even the dreamer could play a part, with the help of divine grace, as Averroes and many others insisted. Ancient poets rubbed shoulders with astronomers as authorities in Sacrobosco, and had a similar function in many other scholarly works right across the board, while Aesop and writers of fables could "announce true facts mystically under metaphorical, tropical and figurative narration, for the sake of rhetoric ... [and thus] proper understanding." There was a whole spectrum of knowledge needed by any who wished to know God. For this end, in other words, one needed the mentality of an encyclopaedist. This point of view was not one to be often defended in high-blown epistemological argument, but one that hinged rather on the gut feeling that "more is better," as my earlier quotation from Josephus (about Solomon's 4005 books) might be taken to illustrate.

SAILING ON THE SEA OF TALMUD: THE ENCYCLOPAEDIC CODE OF EARLY JEWISH EXEGESIS

WOUT JAC. VAN BEKKUM

They read from the book, from the Teaching of God, with interpretation, and they gave the sense, so that people might understand the reading.

This somewhat enigmatic verse in Nehemiah 8:8 applies to the situation in Jerusalem after the return of the Judeans from their exile in Babylonia of approximately seventy years. In the days of the scribe and priest Ezra and the politician Nehemiah, a specific compilation of Hebrew scriptural writings was introduced, or rather reintroduced, as the basis for the reconstruction of Judean or Jewish existence. This compilation represented “the law of God,” simply called *Torah*, literally meaning “teaching” or “instruction.” The ritualistic presentation of the Torah or Pentateuch by Ezra to the people of Jerusalem was accompanied by one striking development: they read the book with interpretation, that is, they investigated its sense or meaning. To be more specific, a number of leading scribes and levites went about expounding or interpreting biblical texts to the people. This activity, which eventually became commonplace, was crucial in the formative stages of Judaism during the so-called “Period of the Second Temple” running from the year 458 BCE until 70 CE). Exegesis of the Hebrew Bible, not just on the basis of the Pentateuch but of all books of the Old Testament, was accepted as an instrument of creation and transmission of what was mostly, but not exclusively, legislative decisions and ethical teachings. The interpretative procedures lay predominantly in the hands of sages and rabbis who considered themselves to be continuing and re-enacting the revelation of the Torah at Mount Sinai to the people of Israel.¹

All the results of their interpretative creativity were shaped and transmitted orally. The concept of such an oral tradition was per-

¹ R. Rendtorff, “Esra und das Gesetz,” *Zeitschrift für Altestamentische Wissenschaft* 96 (1984) 165-184.

ceived in later Hebrew literature as necessarily oral teaching, in contradistinction to the fixed laws and prescripts of the written Torah. Likewise, prayers, sermons and translations were in the early period oral activities which should not be written down.

As for the reasons behind an explicit prohibition on writing, scholars have sought explanations by comparison with similar phenomena in world literature. In the book of James Fentress and Chris Wickham, *Social Memory, New Perspectives on the Past*, an interesting account is offered of oral memory with regard to poetry and narrative². Some of the observations seem to pertain to our subject here: for instance, oral transmission of specific narratives has much to do with passing on concepts, ideas, and images, even more than with mnemotechnical reproduction of text alone. One vital difference is, of course, that the oral tradition of the Judean sages existed against the background of written sources, that is to say, the books of the Hebrew Bible. The Pentateuch and the Prophets were extant in a written form, and oral teachings and explanations were developed in connection with the reading of Scripture. Secondly, alongside oral tradition Hebrew books continued to be written in Palestine. There is ample evidence of a long tradition of writing books from the beginning of the Second Temple period. Some were written in circles far removed from mainstream Judaism, such as the book of Jubilees and the Qumran writings, while others came from circles quite close to it, such as the *Apocalypse of Ezra*. These books also expound upon and develop what was accepted as established holy Scripture.

What then brought the decision to prohibit writing about certain areas of tradition? The issue of prayer could provide a good starting point here. There are many testimonies to the fact that in the first centuries CE, there was no set text of the benedictions of Jewish communal prayer. Apparently, there were well-established larger structures and traditions in phrasing the beginning and ending of the benedictions, but no fixed wording. Thus, there were those who expanded their prayer and others who shortened it. It seems plausible that this attitude towards prayer had the deliberate effect of maintaining a certain degree of fluidity in the text. In other words,

² J. Fentress and C. Wickham, *Social Memory, New Perspectives on the Past* (Oxford 1992) 41-59.

the sages sought to preserve vitality and spontaneity as well as the continuous regeneration of prayer texts, and therefore they opposed any attempt to establish a fixed formulation, implying a prohibition of writing.³

The example of prayer makes it possible to assume that the very attachment to oral transmission of teachings and decisions reflected the wish of the sages to preserve the fluidity of their tradition and its openness to change and development. Secondly, unwritten discussions and teachings would not challenge the accepted authority of the written Torah which represented a supreme value of its own. Thirdly, a political argument could be added here: namely, that the sages of the Second Temple Period had opponents, often priests and aristocrats, who acknowledged only the written Torah as binding, and whose political and spiritual domination within Judean society was always strong, and remained so until the downfall of Judea. Oral transmission from this point of view was a matter of caution.

The existence of oral teaching and explanation is evidenced in the works of Philo of Alexandria, Flavius Josephus and in early Christian literature. These works do mention a conscious distinction between Scripture and so-called ancestral or prophetic tradition which was not written. Of course, rabbinic literature itself from the second century onwards refers to oral tradition, but does so in a particular way. The daring concept of "oral Torah" is introduced with all the implications of the word Torah: that is to say, the oral Torah, too, was assumed to have been given at Mount Sinai. In the Talmud it is unambiguously stated that two Torah's were given to Israel, and both must be accepted in faith. Oral Torah is initially seen, as it were, as implicitly present in the teachings that Moses gave before the community, but later generations accepted the conception that the oral Torah in its entirety was given to Moses on Sinai. There is a tradition in the Palestinian Talmud from the year 400 which goes so far as to say: "The words of the scribes are more beloved and cherished than the words of the Torah themselves." (*Berakhot* 1,4,3b). This idea enabled the sages to oppose scriptural fundamentalism and assert their freedom to counsel and legislate in

³ S. Safrai, *The Literature of the Sages, First Part: Oral Torah, Halakha, Mishna, Tosefta, Talmud, External Tractates* (Assen 1987) 45-49.

the context of their own time.⁴

Two questions are now to be asked in the pursuit of the encyclopaedic code in early Jewish exegesis: what did oral Torah entail, in other words, what were the results of oral teaching and preservation of the sages and rabbis during the Second Temple period, and how were large parts of the oral tradition actually written down in the period following the destruction of the Second Temple? According to later sources a variety of material was studied and taught. This can be summarised in the following main categories: (1) interpretations of biblical verses and phrases; (2) homilies; (3) jurisprudence; (4) stories. Category 1 also includes Aramaic translations of the Torah called *Targumim*, and prayer texts could be added to category 2, the homilies. However, this generic division and subdivision is only indicative, because the range of subjects touched upon is tremendous. The sages were convinced that all of life was permeated with Torah, which is why there was no taboo on the study of whatever subject or whatever minute detail thereof. This is what later Jewish tradition calls "the sea of Talmud," or rather, "the sea of *Halakhah*," a wealth of regulations, explanations, exchanges of views, advice, hints, questions and problems. The sages dealt with matters of everyday life concerning food, sex, occupation, medicines, alongside concepts of ethics, language, human nature and God. Their world was not closed to external influence or knowledge, but they confined themselves to what they regarded as important. Classical literature and Greek philosophy, for instance, did not straightforwardly contribute any subject matter to them, a striking difference from Egyptian Jewry in earlier days, where Hellenistic-Jewish culture flourished.

How then was this vast material transmitted and collected, and why was it eventually edited into written documents? There is much reason to believe that there were early compilations of oral teachings, organised according to two criteria: by subject, and by exposition of the material. The first criterion, by subject, can be demonstrated *a posteriori* in the rabbinic writings by the rough division of the material a part dependent on Scripture, and into a part that was independent of Scripture. The first part is defined in

⁴ E.E. Urbach, *The Sages, Their Concepts and Beliefs* (Jerusalem 1979) 1.293.

Hebrew as *Aggadah*, mostly consisting of historical or pseudo-historical narratives, much akin to what is found in intertestamental literature, in apocrypha and pseudepigrapha. The second part is defined as *Halakhah*, consisting to a great extent of innovative regulations with often nothing but a small basis in Scripture. This seems to contradict our earlier statement that oral tradition was developed in relation to Scripture, but this relationship did not prove to be consistent. Indeed, a second main corpus of teaching developed, a second Torah was on its way.

The moment we define these two parts, difficulties arise with regard to the observations on the exposition of the material. The first written collection of oral traditions, the *Mishnah*, was intended to be a composition of legal principles and thought formulated independently of Scripture; however, it does contain large narrative sections, and exegetical portions are found interspersed from beginning to end. Together with this standard codex, exegetical works were composed for Exodus, Leviticus, Numbers and Deuteronomy, which were devised in a legalistic framework. They cover only the legal sections of the Pentateuch, excluding the book of Genesis and the longer narrative parts such as Exod. 1-11. The main interest of the editors of these compositions clearly was with legislation, but they also contain a great deal of story-telling. It turns out that these criteria were never strictly followed, and this may be considered a reflection of the oral character of this literature, even in the written form. The occurrence of many deviations from the general editorial line might stem from the oral nature of the material. This peculiar feature is even more prominent in the two larger collections of oral traditions, the Palestinian and Babylonian Talmud, composed in the fourth and fifth centuries.⁵

The phenomenon described above can best be illustrated with some examples. For instance, regulations for the Sabbath are part of a purely legislative account. It is recorded in Ex. 20:10 and Deut. 5:14, that "the seventh day is a Sabbath to the Lord your God; you shall not do any work, you, or your son, or your daughter, your manservant, or your maidservant, or your cattle." Without mentioning the biblical source the Mishnah relates to the rest of cattle on the Sabbath (5,1), and the question is asked: "With what burden

⁵ Safrai, *The Literature of the Sages* (as in n.3), 52-60.

may cattle go out on the Sabbath and with what may they not go out?" The answer is: "The camel may go out with its curb, the female-camel with its nose-ring, the Libyan ass with its bridle, the horse with its chain, and all beasts which wear a chain may go out with a chain and be led by the chain." The criterion for these statements appears to be the question whether these attributes are meant as instruments, enabling the owner to let the animals work on the Sabbath, or as ornaments, only decorations without any intention to use them for work. This becomes clear at the end of the list (5,4): "The cow may not go out with the strap between its horns," followed by a stunning biographical detail: "Rabbi Elazar son of Azariah's cow used to go out on the Sabbath with the strap between its horns," apparently either for ornament or protection, but the text says: "This was not with the consent of the sages," who apparently took the strap as a possible means to put the cow to work. The case of Rabbi Elazar is an isolated narrative detail in the midst of a list of prohibitive regulations.

Elsewhere in this composition we encounter historical traditions in much detail, for instance, with regard to the High Priest on the Day of Atonement. The legislative element is reflected in the words of Lev. 16:8 ("He shall make atonement for himself and for his house"). Therefore it is taught that another priest was made ready in his stead, if something should befall him to render him ineligible. Rabbi Judah adds: "Also another wife was made ready for him, if his own wife should die." He applies the biblical words "for his house" to the wife of the High Priest and all her substitutes, but the sages said to him: "If so there would be no end to the matter." After this brief interpretative introduction it is said within the setting of preparatory rites for the Day of Atonement that the High Priest should stay awake on the eve of the Day of Atonement [in order to prevent nocturnal emission which makes him unfit for the atonement ritual]: "If he was a sage he used to spend his time by expounding Scripture, if not others would do it before him. If he was versed in reading Scripture he read, and if not others would read before him. From what did they read before him. Out of Job and Ezra and Chronicles [these are books that divert the mind and drive away sleep]. Zechariah son of Kabutal says: Many times I read before him out of Daniel! When he tried to fall asleep, young

priests would snap their middle finger before him and say to him: My lord High Priest, get up and drive away sleep by walking with your bare feet on the cold marble pavement!" (Yoma 1,1-7). We learn from this account that the High Priest was not always recruited from the priestly ranks, but occasionally may have been genuinely unlearned, probably a boy or man who was pushed forward by the aristocratic establishment in order to fulfil the honorary function without really knowing what to do.

These examples may suffice for demonstrating the interaction of elements of exegetical and narrative nature which characterise the phrasing of this type of literature. Style and language were clearly designed for memorisation and for the continuity of oral study and teaching. We read frequently that recitation and repetition is required and it had to be done with full and accurate articulation. The process of establishing a fixed literary form for all that was taught and studied orally was a very gradual one. Certainly not all sages acceded to the change at the same time.

Let us return to the *Mishnah*, the earliest and most thoroughly edited document of rabbinic Judaism. Compilation and edition took place during the second and third centuries. Its literary features suggest that it was a textbook of law rather than a binding code. Interestingly enough, the work is arranged according to six orders, each order being itself divided into tractates, chapters and pericopes. The names of the orders are: *Seeds* (agricultural matters), *Festivals*, *Women* (matters such as marriage and divorce), *Damages* (civil and criminal law), *Hallowed Things* (Temple matters), and *Purities* (matters of ritual purity and impurity).⁶ The tractates within these orders are arranged according to their size, the largest coming first and the smallest last (a similar external redaction can be found in almost all ancient collections, most notably the Qur'an). On the level of the smaller redactional units, chapters and pericopes, it is often difficult to detect what the logic is behind the distribution of the subject-matter. For instance, in the Sabbath regulations mentioned above there exists a topical line within the chapters, but it is rare that a single course is kept. One might judge this feature to be a deficiency, but I prefer to stress that the editor or

⁶ H.L. Strack/G. Stemberger, *Einleitung in Talmud und Midrasch* (München 1982) 111-142.

editors deliberately maintained the plurality of teachings, sayings and rules in order not to commit themselves to any particular point of view. The anonymous traditions are usually those which come closest to a generalised teaching on a given subject.

The model of the oral Torah in written form, the Mishnah, was accepted in the emerging Palestinian and Babylonian Talmud. Both works can be defined as encyclopaedic in the sense that they combine biblical legislation and exegesis alongside mishnaic interpretation with a great deal of information from all areas of life. The Babylonian Talmud, which is *the* Talmud, was to become the most influential document in medieval Judaism, but its redaction and edition is extremely complicated. Studies and analyses of the talmudic texts have appeared endlessly. The basic idea is that the Talmud represents a collection of many independent traditions that underwent various stages of transmission and redaction during which material was added and its texture was changed. As a next step, the editors themselves may have adapted the texts to their new literary contexts. Thirdly, the scribes of the Talmud manuscripts introduced certain changes and harmonisations, a procedure which seems to have partly overlapped with the work of the editors. After all, it took almost three centuries before the Talmud reached its final form.

The mishnaic citations function in the Talmud as introductions to the text itself, written in an Eastern Aramaic dialect, and coloured by Persian, Greek and Latin vocabulary. The technical term for the text corpus is *gemara*, "learning," just as the word *talmud* means "study," once again denoting the fact that the period after the edition of the Mishnah and other minor compilations is marked by ongoing intense commentary to, and extended teaching of, all that went before it. Because of its intricate composition, the Talmud has been described as utterly unsystematic, but it is possible to detect a tendency toward structuralisation and categorisation. The text can be divided into basic literary units, the so-called *sugyot* (sing. *sugya*) which literally means, once again, "lesson" or "course." The *sugya* can at best be defined as an extended discussion of a particular topic, which incorporates many of the earlier opinions and teachings pertaining to the same topic. One can easily get an impression of artificiality and strained logic of the *sugyot*, but these

features were often recognised by the Talmud sages themselves who hesitated to make strong decisions on the basis of what emerges from it. Every *sugya* consists of two parts, a basic text and an interpretative discussion. The basic text as a rule consists of a bare statement of a talmudic sage, whereas the reason for his statement or its special interpretation belongs to the discussion. Each discussion is framed by a set of technical expressions which govern the contents and the outer form of the *sugya*. These expressions suggest a direct involvement of the reader in the dialogue or discussion, for instance, "come and hear," "it has been learnt," "you have learnt," "some say," "it is all right if you say," "if you like I can say," "it can be asked by you," "how do we know?," "who says?," "why should you assume?," and: "they have a difference of opinion," "how is that to be understood?," "I will suggest an apparent contradiction," "an objection is made," "it is unnecessary to say," "it is the opposite!," "if that were the only thing, it would not be so difficult."

Interestingly enough, both the statements and the discussions underwent a great deal of redaction. This fact in itself reveals which topics were discussed and to what extent they were treated in the Talmud, and also which topics were left out. Here the criterion of selectivity plays an obvious part in the presentation of material, demonstrating the wish for a basic unity in the fundamental religious outlooks and social values of the sages. On the other hand, these unitary features should not disguise the diversity of subjects. The latter can be demonstrated by the attitude of the talmudic sages towards natural sciences. Do they formulate general principles of natural facts and phenomena, and do they want to classify them? The answer is affirmative: they do describe and categorise, for instance, plants, but for them it was not a matter of strictly logical classification, but an issue of practical value. When the anonymous teaching states that certain plants may or may not be eaten on the Sabbath (109b), the discussion begins with the identity of those plants, then, by association, general advice is given how to treat snake bite; next medical advice is given for the treatment of jaundice. The remedies for jaundice are an occasion for mentioning other drinks, easily combining medical practice with a touch of magic. For instance, it is said: "One drinks urine of a forty-day-old

baby as a remedy; in a very small measure for the sting of a wasp, for a scorpion bite, for dirty water, but a quarter *log* (137 cc) is efficacious even against witchcraft!" In another instance the sages deal with the specification of animals, self-evidently within the context of the question how to distinguish between clean and unclean animals according to Lev. 11. Thus we see how descriptions of animals are prompted by religious motives or dictated by the duty of fulfilling the commandments of the Torah. The text says (*Bekhorot* 59a): "The characteristics of cattle and of wild animals are stated in the Torah. The characteristics of birds are not stated, but the sages have said: 'every bird that seizes its prey is unclean.'" The (mishnaic) statement is followed by a lengthy discussion regarding birds and their distinguishing characteristics, until one gets to some kind of statistics: "There are seven hundred species of fishes, eight hundred of locusts, but the species of birds are innumerable" (63b).

Some information concerning natural science suggests borrowing from literary sources or common knowledge. This is difficult to prove, but the strong impression is given that such data from natural science derive from sources accessible to Jews and gentiles alike. The Talmud did not emerge within an isolated milieu, but is just as much a result of the acculturation of the sages to Hellenistic-Roman life.⁷

The methods of redaction and edition of the Talmud proved to be sufficiently stable in order to generate a flux of commentaries during the Middle Ages. Many subsequent compositions understood the lack of arrangement of talmudic material as a certain type of approach. The assumption was that the Talmud, as a literary extension of the tradition of the written Torah, reflected life itself, which could not be artificially systematised, but must develop naturally from subject to subject. However, there were always people who wanted to categorise and standardise the facts and teachings of the Talmud. Their first interest was to classify exegetical and legalistic material.

The greatest of the medieval compilers who undertook this task was Maimonides (1138-1204) from Cordoba. He wrote a compen-

⁷ S. Lieberman, *Hellenism in Jewish Palestine* (New York 1962) 100-114, 180-193.

dium of Jewish law which became known by its pretentious title *Mishneh Torah*, "The Repetition of Torah." This codificatory work was to a great extent responsible for the continuance of talmudic studies in the late Middle Ages. He also planned a special commentary in which he would have classified, explained and rationalised talmudic narratives, but he later abandoned the idea of composing such a work. His famous philosophical-theological work *The Guide of the Perplexed* was seen by him as a partial substitute for it.⁸ Another work was again a model of ambitious schematisation: a listing of 613 commandments of the Torah, separating negative from positive commandments. Maimonides presented the principles and concepts of Rabbinic-Jewish tradition within a kind of mathematical framework, including relevant grammatical, lexicographical, and post-talmudic exegetical material from authors who lived prior to or during his own days. Special mention should be made of his use of non-Jewish sources: medical literature, works on astronomy, mathematics, and geometry, and the whole range of classical philosophy. The salient feature of Maimonides' oeuvre is a clear encyclopaedic coverage of an abundance of literary sources, combining his own creative powers of synthesis and analysis. In other words, his codificatory task was not strictly formal and technical, but entailed a large measure of personal selection and evaluation. In doing so, he must have hoped that people would rely on his decisions, sanction his selections, and endorse his interpretations, thus deeming his work as a source of general authority. Despite impassioned controversies on details of Maimonides' thought, within a century his decisions and concepts were generally adopted. This encyclopaedic code of Jewish exegesis, shaped and developed by the permanent tension between the wish to preserve and the wish to innovate, would remain standard for a long time to come.

⁸ *The Guide of the Perplexed*, Moses Maimonides, Shlomo Pines & Leo Strauss (Chicago and London 1963); *History of Islamic Philosophy*, in: S. H. Nasr and O. Leaman (eds.), Routledge History of World Philosophies I & II (London & New York 1996) 673-782.

COMPILATION AS THEME AND PRAXIS IN FRANCISCAN UNIVERSAL CHRONICLES

BERT ROEST

This paper attempts to delineate how the planning and the actual format of Franciscan universal chronicles produced between c.1260-1350 compare to contemporary conceptions of encyclopaedic knowledge, and to a predominantly Franciscan epistemological metastructure of religious learning. At the core of this attempt are three interrelated postulates. First, without equating historiography with encyclopaedias, it can be shown that Franciscan chronicles nevertheless display an affinity with some medieval encyclopaedic conceptions. Second, Franciscan historians actually defined their works as historical compilations, sometimes with repercussions for the organisational principles they followed. Third, these works comply with Franciscan epistemological notions concerning the procedures and the final goal of religious learning.

In order to expound the first postulate, it is necessary to say something about medieval encyclopaedism. The medieval encyclopaedia is unlike its modern counterpart—aside from the fact that the word itself was not used in those times:¹ in that regard it is misleading to speak of medieval encyclopaedias altogether. Between the late twelfth and late thirteenth centuries—according to Jacques le Goff the central period of medieval Latin encyclopaedism²—encyclopaedic writing meant first of all “l’effort d’une intégration ordonnée en un seul ouvrage du contenu d’une multitude de livres.”³ This implied, among other things, the quest for an organisation or a re-organisation of existing knowledge, and in addition its

¹ One of the oldest vernacular references is found in the *Pantagruel* of Rabelais (1532), as a corruption of the Greek term *enkyklios paideia*, which in Greek and Roman times referred to the propaedeutic formation of youth. See: M. Picone, “Il significato di un convegno sull’enciclopedismo medievale,” in: *L’enciclopedismo medievale. Atti del convegno ‘l’enciclopedismo medievale’, San Gimignano 8-10 ottobre 1992*, ed. M. Picone (Ravenna 1994) 15-16.

² J. Le Goff, “Pourquoi le XIII^e siècle a-t-il été plus particulièrement un siècle d’encylopédisme?,” in: *L’enciclopedismo medievale* (as in n.1) 24-39.

³ *Préface au Speculum Maius de Vincent de Beauvais: réfraction et diffraction*, ed. S. Lusignan, Cahiers d’études médiévales 5 (Montréal/Paris 1979) 94.

abbreviation for a range of edifying purposes.⁴

Later medieval encyclopaedic writings professed to contain a world of basic learning opened up for a variety of uses, leaving open the possibility of in-depth reading elsewhere. They served the schools, the emerging universities, and the ever more professional forms of pastoral care, which demanded standardisation and better forms of access (also visible in distinction collections, biblical concordances, and the adoption of a standard chapter division of the biblical text).⁵ Not surprisingly, the organisation of individual works became more refined, in particular with recourse to the Aristotelian concept of the four causes.⁶

Theoretical interests such as these and educational needs in particular shaped the format of the medieval encyclopaedic text, and changed the appearance of the medieval manuscript. Marginal numbers for cross-references, the application of running headlines, the analytic table of contents, as well as a range of additional devices facilitated random access and aimed to strengthen and to supplement human memory.⁷ Medieval scholars therefore recognised

⁴ "Die Geschichte der Enzyklopaedie ... ist eine Geschichte ihrer Reorganisationen." C. Meier, "Vom Homo Coelestis zum Homo Faber. Die Reorganisation der mittelalterlichen Enzyklopädie für neue Gebrauchsfunktionen bei Vinzenz von Beauvais und Brunetto Latini," in: *Pragmatische Schriftlichkeit im Mittelalter. Erscheinungsformen und Entwicklungsstufen*, ed. H. Keller (Munich 1992) 157. "...seine Organization bedeutet immer Formung eines Welt-Bildes." *Ibid.*, 157. In the prologues to works such as the *Speculum Majus*, these purposes of encyclopaedic writing are clearly stated. See Lusignan, *Préface* (as in n.3) 118.

⁵ R.H. Rouse, "Le développement des instruments de travail au xiii^e siècle," in: *Culture et travail intellectuel dans l'occident médiéval*, ed. G. Hasenohr, J. Longère (Paris 1981) 116-118.

⁶ A.J. Minnis, A.B. Scott, *Medieval Literary Theory and Criticism c. 1100-1375*, 2nd ed. (Oxford 1991) 2-3, 198; M.B. Parkes, "The Influence of the Concepts *Ordinatio* and *Compilatio* on the Development of the Book," in: *Medieval Learning and Literature. Essays presented to Richard William Hunt*, ed. J.J.G. Alexander, M.T. Gibson (Oxford 1976) 115-141, esp. 119-120.

⁷ Rouse, "Le développement" (as in n.5) 125; Parkes, "The Influence" (as in n.6) 124. Carruthers has demonstrated that the changes in the medieval codex do not simply signify the transition from *rota* to reference, from a memory-based monastic culture to a document-based scholastic culture. Training of human memory and reliance on a documentary artificial memory were complementary. A well-ordered book WAS itself a mnemonic device as well as a reference work. M. Carruthers, *The Book of Memory. A Study of Memory in Medieval Culture*, Cambridge Studies in Medieval Literature 10 (Cambridge 1990) 7.

the desirability of restructuring inherited materials—which was, in fact, a primary aspect of later medieval encyclopaedic writing, and also led to a more positive status for the “compilation” as a form of writing and as a means of making materials more condensed, and hence accessible.⁸

The notion of compilation has a history of its own. In classical times *compilare* meant more or less to plunder or to steal. It had a negative tone, which, as Parkes, Guenée, Minnis and Richard and Mary Rouse have taught us, only began to change in an educational situation where handbooks and summaries became indispensable. In law collections of the eleventh and twelfth century, terms as *compilare* began to be used to denote the activity of harmonising the *auctores*.⁹ Shortly afterwards the term entered the works of encyclopaedists, whether they were scientists, historians or theologians. They called themselves *compilatores*, or *actores*, presenting the *auctoritas* of others (the *auctores*).¹⁰ Yet the encyclopaedists wanted to present authoritative knowledge in a brief and accessible manner. Instead of concordances, their compilations were arrangements of *auctoritates*.¹¹ Hence, *compilare* acquired the same meaning as *deflorare*, *excerpere*, or *colligere*,¹² and in their scholarly introductions, thirteenth-century encyclopaedists like Bartholomaeus Anglicus showed that *compilatio* was a specific characteristic of the medieval encyclopaedia:¹³ it comprised the search

⁸ Parkes, “The Influence” (as in n.6) 127.

⁹ B. Guenée, “L’histoire et la compilation au xiii^e siècle,” *Journal des Savants* (1985) 119-135; A.J. Minnis, “Late-Medieval Discussions of *Compilatio* and the Role of the *Compiler*,” in: *Beiträge zur Geschichte der deutschen Sprache und Literatur* 101 (1979) 385-421. For Rouse, see especially the article mentioned in n.5.

¹⁰ Minnis, “Late-Medieval Discussions of *Compilatio*” (as in n.9) 386-387.

¹¹ Guenée, “L’historien et la compilation” (as in n.9) 124-125.

¹² *Ibid.*, 120-121. For a critical assessment of the history of *ordinatio* and *compilatio*, and the use made of it by present-day scholars, see: R.H. Rouse & M.A. Rouse, “*Ordinatio* and *Compilatio* Revisited,” in: *Ad Litteram*, ed. M.D. Jordan, K. Emery, 113-134.

¹³ *In istis decemnovem libellulis rerum naturalium proprietates summatim et breviter continentur prout ad manus meas metentium pertinere poterunt. In quibus de meo pauca vel quasi nulla apposui, sed omnia que dicuntur de libris auctenticis sanctorum et philosophorum excipiens sub brevi hoc compendio compilavi. De Proprietatibus Rerum* (Cologne 1472). See also Guenée, “L’historien” (as in n.9) 125ff.

for brevity, the attempt to rejuvenate authentic materials (which implies the importance of choice), and the organisation of materials into carefully subordinated textual units.¹⁴

The second postulate is that Franciscan historians—who often (had) worked as lectors in Franciscan *studia*, and therefore were well-acquainted with educational and pastoral concerns—tried in their chronicles to give an encompassing and yet accessible and concise treatment of the history of mankind (either since the fall or since the redemptive work of Christ), and saw their own writing primarily as a compilatory activity. Leaving characteristic order histories aside, we can distinguish with some caution between three “types” of medieval Franciscan historical writing.¹⁵

First of all there are various small chronicles, which have received a fair amount of attention from Anna-Dorothea von den Brincken, Peter Johanek and Dieter Berg.¹⁶ One of these, the Chronicle of Erfurt (*Cronica Romana*), contains a list of popes and emperors, around which a carefully selected mass of materials is

¹⁴ Minnis, “Late-Medieval Discussions” (as in n.9) 391-392. By the end of the thirteenth century: the compilation had become a well-established and prestigious genre. This is also reflected in contemporary academic discussions of authorship, such as that of Bonaventure in the prologue to his *Sentences* commentary.

¹⁵ For further information on Franciscan historiography, see B. Roest, *Reading the Book of History. Intellectual Contexts and Educational Functions of Franciscan Historiography 1226 – ca. 1350*, Ph.D. Diss. (Groningen 1996), especially 33-68, 125-280.

¹⁶ See especially D. Berg, “Studien zur Geschichte und Historiographie der Franziskaner im flämischen und norddeutschen Raum im 13. und beginnenden 14. Jahrhundert,” *Franziskanische Studien* 65 (1983) 114-155; idem, “Historische Reflexion und Tradition. Die ‘Fioretti’ und die franziskanische Geschichtsschreibung bis zur Mitte des 14. Jahrhunderts,” *Wissenschaft und Weisheit* 48 (1985) 82-101; A.-D. von den Brincken, “Zur Herkunft und Gestalt der Martins-Kroniken,” *Deutsches Archiv* 37 (1981) 694-735; id., “*Inter spinas principum terrenorum*. Annotazioni sulle somme e su i compendi storici dei mendicanti,” in: *Aspetti della letteratura latina nel secolo XIII*, ed. C. Leonardi, G. Orlandi, Atti del primo convegno internazionale di studi dell’Associazione per il Medioevo e l’Umanesimo Latini (AMUL) (Spoleto 1986) 77-103; id., “Anniversaristische und chronikalische Geschichtsschreibung in den ‘Flores Temporum’ (um 1292),” in: *Geschichtsschreibung und Geschichtsbewußtsein im späten Mittelalter*, ed. H. Patze, Vorträge und Forschungen 31 (Sigmaringen 1987) 195-214; P. Johanek, “Flores Temporum (‘Martinus Minorita’),” in: *Die deutsche Literatur des Mittelalters. Verfasserlexikon* 2 (Berlin/New York 1980) 753-758. At present, Johanek is preparing a new synoptic edition of the *Flores temporum*.

gathered. The work is overtly presented as a *compilatio*,¹⁷ which in this context is almost identical with *florilegium*, although it can be argued that the *florilegia* formed a specific subgroup of small compendia which presented a selection of materials with even more specific educational goals in mind. In this regard we can point to the famous *Flores temporum*, which uses *sanctitas* as its principle of selection.¹⁸ These small chronicles form a very substantial group within the Franciscan historical output. Although they have not always been favourably regarded by modern scholarship, they were extremely successful in the later middle ages, surviving in dozens of manuscripts and in many Latin and vernacular adaptations.

Next, there are the chronicles of middle size. First of all are those which in form and content resemble the small chronicles just mentioned. In these intermediate chronicles the format is sometimes justified by recourse to the age-old dichotomy between the *chronicus* and the *historicus*. To my knowledge the best example is provided by the *Gesta imperatorum et pontificum* of Thomas of Pavia:

... we have desired to forestall both brevity and prolixity. Indeed, excessive brevity brings forth the clouds of darkness, and does not diminish the appetite and the desire for knowledge but rather stimulates it Excessive prolixity, in its turn, not curbed by appropriate mitigation, often creates in readers an aversion, since even in case of great famine the intake of an overabundant quantity of food is proven to produce sickness. Therefore we try to keep the middle road between dearth and excess and tell useful things, insofar as we will see it to be profitable, and we will leave superfluous things behind. For most of those who have written chronicles have been guilty of excessive brevity, while often those who have written histories have suc-

¹⁷ *In hac compilatione, que de diversis excerpta est ... ostenduntur legere volentibus aliqua de gestis sive statutis Romanorum pontificum et de statu bono vel malo imperatorum, insuper quibus qui successerunt tam in sede apostolica quam etiam in Romana re publica. Chronica minor Auctore Minorita Erphordiense*, ed. O. Holder-Egger, MGH SS 24 (Hannover 1879) 178.

¹⁸ *...omnium regum Romanorum tempora et annos breviter annotavi, non ad eorum laudem, sed ad sanctorum eisdem contemporaneorum gloriam et honorem, ut inter spinas principum terrenorum celice rose pullulent et lilia paradisiaca beatorum. Et ob hoc presens opusculum "Flores temporum" nuncupavi. Flores temporum*, ed. O. Holder-Egger, MGH SS 24 (Hannover 1879), 231A.

cumbed to the vice of prolixity.¹⁹

Most of these Franciscan historical works, whatever their other means of textual organisation, take the sequence of years and the reigns of popes and emperors as the most natural point of departure. In this way, they follow the historical order, which from a certain point of view is the *ordo Sacrae Scripturae*, which starts with creation and relates the story of the fall of man and the *reparatio* in the course of time.

A rather special branch of Franciscan historical writing, which, because of this should perhaps not be assigned to *historia* properly speaking, is arranged thematically. The best examples of this are not universal chronicles, but order-histories such as Eccleston's chronicle, and works like friar Juan Gil of Zamora's peculiar *De preconiiis Hispanie*. The latter is an educational treatise for a lay ruler, produced between c.1278 and 1282 for Gil's young master Sancho "el Bravo" of Castile.²⁰ The work, of which, according to some manuscripts, the full title is *Tractatus de preconiiis Hispanie ad informationem principum et magnorum*, consists of a series of twelve treatises on the history of Spain and its famous kings, scholars, heroes and regions.

In a truly moral-theological fashion, Gil voices the conviction that abstract political theory in itself is not as compelling as examples from the past, which prove themselves as bait to hook the affective capacities of the human soul:

Just as the blood of animals and, what is even more surprising, the juice of grape and blackberry, according to the History of the Maccabees [I Macc. 6:34] sharpen elephants for battle when it is shown to them, so the examples of illustrious princes arouse the souls of noble men and urge them to increase and strengthen their virtue. No doubt examples have more effect than words, deeds more than sayings, experiments more than mere display; the example of Alexander in battle more than Aristotle in dispute, the examples of Octavian and Trajan more than the word of Tully and Jovinian. For words are sof-

¹⁹ *Thomae Tusci Gesta Imperatorum et Pontificum*, ed. E. Ehrenfeuchter, MGH SS 22 (Hannover 1872) 490 (my translation).

²⁰ Juan Gil de Zamora, *De preconiiis Hispanie*, ed. Manuel de Castro y Castro (Madrid 1955). It must have been a fairly popular work in the late middle ages, for it has survived in whole or in part in at least 20 Spanish and Italian manuscripts.

tening, but examples are penetrating; words touch but examples compel.²¹

In this thematic history of Spain, the materials are organised, to make quick access possible. This objective too is made clear from the very beginning.²² We can infer from this that venerable historiographical traditions notwithstanding—in which the emphasis was on chronology—Franciscan historians could adopt the innovative compilatory methods and techniques which we associate with medieval encyclopaedism, in which form followed function; this had repercussions for the structure and lay-out of the historical narrative.

Finally, we have large Franciscan chronicles, such as those of Paulo of Gualdo, Elemosina of Gualdo, and Paulinus of Venice. In a sense these larger works are still very close to the literary traditions connected with medieval universal chronicles of the early and high middle ages. But these large Franciscan chronicles too, in line with contemporary encyclopaedias, take advantage of new techniques of composition. The most refined examples in this regard are the three universal chronicles of Paulinus of Venice in the early fourteenth-century,²³ namely the *Notabilium ystoriarum epithoma*, the *Compendium* or *Chronologia magna*,²⁴ and the *Satirica ystoria*. These works, which in their different manuscript versions are provided with various subject-indexes and detailed tables of contents, represent several stages of rethinking a balanced form of encyclopaedic historiography, which encompasses history as well

²¹ *De preconiiis* (as in n.20) Prologus, 3-4 (my translation).

²² *Ut autem quod quesieritis, facilius invenire possitis, singulis subsequentibus per ordinem capitulis, digestis titulis, adnotavi; quibus, quasi quibusdam clavibus, intellectus referetur, et omni confusione remota, animus vester tanquam stellis interlucentibus illustretur. Ibid., Prologus, 4.*

²³ See on these works: I. Heullant-Donat, "Entrer dans l'histoire. Paolino da Venezia et les prologues de ses chroniques universelles," *Mélanges de l'école Française de Rome. Moyen Age-Temps Modernes* 105 (1993) 381-442; id., *Ab Origine Mundi. Fra Elemosina e Paolino da Venezia. Deux Franciscains Italiens et l'histoire universelle au xive siècle*, Thèse pour le doctorat ès-lettres, 3 Vols. (Paris 1994).

²⁴ Probably the most revolutionary work, surviving in five manuscripts (in a short and a long version). "Il ne s'agit plus d'une texte entièrement rédigé mais d'un tableau qui rassemble l'essentiel des données chronologiques de l'Epithoma en une disposition graphique nouvelle." Heullant-Donat, "Entrer dans l'histoire" (as in n.23) 395.

as geography, taking heed of Hugh of St. Victor's dictum that a complete understanding of history should comprise the categories *tempus*, *persona*, and *locus*.

In all these works, Paulinus, in a truly compilatory fashion, promised to be brief and clear.²⁵ This can be illustrated by his statements in the prologues of the *Compendia* and the *Satirica ystoria*. The former nicely elaborates the age-old *chronica* vs. *historia* division, which we already encountered in the prologue of the chronicle of Thomas of Pavia, and argues for the virtuous mean. The latter shows the urge to vindicate the choices made in the selection of materials in a different manner:

We have selected what is instructive for (our) conduct, such as virtuous deeds, exemplified in particular in the deeds of saints; that which enlightens the intellect, exemplified primarily in the history of the Gospels, the Old Testament and in the "flowers" of the doctors of the Church; and that which makes us weary of future dangers, exemplified in particular in the histories of the pagans, the wars of the Romans and the vicissitudes of other reigns. Therefore we have gathered, so to speak, from countless books only the most important things, following the example of that lofty scholar [John the Evangelist], who, writing the most well-known deeds of Christ, remarks at the end of his gospel: "Jesus did many other things, which are not related in this book. And if they were to be written down every one, then I think the world itself is not big enough to contain the books that should be written."²⁶

Like Gil de Zamora and Thomas of Pavia before him, Paulinus was concerned about the format of his works. He was convinced that writing history was only possible and useful if based on a careful selection. Even when the history of the world as a whole was to be presented, it was still clear that only a concise, well-organised and accessible work of history could properly fulfil its most important functions. These comprised the supplying of worthwhile knowledge of mores and virtues through the deeds of saints; the enlightenment of the intellect with the history of the Gospels, the Old Testament

²⁵ This was also promised by Peter Lombard and Vincent of Beauvais. Books are many and life is short: *Faciendi plures libros nullus est finis* (Eccles. 12:12), but the making of another book may be excused if that book is a handy reference-work of *flores auctorum*. Minnis, "Late-Medieval Discussions" (as in n.9) 394.

²⁶ Vaticano, Bibl. Apost. Vat., lat. 1960, fol.49ra (my translation). Cf. the diplomatic edition of E. Heullant-Donat, "Entrer dans l'histoire" (as in n.23) 440-441.

and the “flowers” of the doctors of the Church; and the provision of important moral and political lessons in the histories of wars and empires. It would not be easy for readers to store all this in their memory unless it was selected and presented carefully. In that sense, Franciscan historians such as Paulinus of Venice shared the same concerns as did well-known encyclopaedists such as Vincent of Beauvais and Bartholomaeus Anglicus, even if many Franciscan chronicles were more modest in scope.

From an epistemological point of view, the prologue of the *Satirica ystoria* is also very interesting:

Because all knowledge or habit is either acquired through invention, as is the case with knowledge coming from things—the reason why Aristotle, when asked by his pupil Alexander whence he had become knowledgeable, answered through the things themselves, which cannot lie—or through revelation, and such is the knowledge that Moses, the first historiographer, had received from God concerning the creation of the world, and such is the gospel that the highest apostle preached to the Galatians: “For I did not receive this from any man but through the revelation of Jesus Christ.” Yet the ordinary historian is not able to acquire knowledge of histories and events through invention, because the things in themselves are no longer extant to be presented to the intellect. Neither should knowledge of these things be ascribed to revelation when with God’s ordinary help human effort itself suffices.²⁷

Apparently, Paulinus felt the urge to give compilatory historiography a place in the scholastic edifice of learning, at a time when the paradigm of scientific knowledge did not automatically validate the work of the historiographer. Following the definitions of the schools, all valid knowledge (denoted by *scientia* or *habitus*) was acquired either through *inventio* or through *revelatio*. With *inventio* we are back in the world of scientific discourse: it is the acquisition of knowledge by means of concepts abstracted from sense perception. This, in combination with logical procedures, is at the basis of scientific knowledge, leading to necessary truths with a universal validity; hence the reference to Aristotle, the patriarch of scholastic scientific discourse. *Revelatio* is knowledge directly given to man by God, and revealed knowledge is at the basis of Christian faith. It

²⁷ *Ibid.* fol.49ra (my translation); E. Heullant-Donat, “Entrer dans l’histoire” (as in n.23) 440-441

is the knowledge of the patriarchs and the prophets, such as for instance the knowledge of Moses concerning the creation of the world, about which no human record existed, and the knowledge that enabled the evangelists to compose the text of the Gospels. Together the concepts of *inventio* and *revelatio* dominated many epistemological discussions in the scholastic period, as appears in prologues to *Sentences* commentaries and in works such as Robert Kilwardby's *De ortu scientiarum*.

Paulinus realised that the ordinary historian was not able to acquire knowledge of the past through *inventio*, nor, with the exception of Moses and a few other "inspired" writers, like the evangelists, through *revelatio*. But in contrast with some of his contemporaries, Paulinus did not think that this disqualified history as a form of knowledge. He made a case for the idea that the historian should rely on *eruditio*, the most important tool of the historian/compilator. The proper procedure for *eruditio* was a thorough investigation of the days gone by from the creation of man onwards, to find out about the things that had happened. For this procedure the historian could rely on past authors, who had committed to writing the *res gestae* of their own time. Their eyewitness accounts provided touchstones for trustworthiness. As suggested by biblical authorities and by authorities such as Cicero and Hugh of Fleury, *eruditio* not only supplied the historian with trustworthy knowledge, it also offered a model for the form and content of the historical narrative: the historical narrative must start with Adam, and it should present the events and the historical actors in the right—historical or chronological—order, from generation to generation. Only then, when the historical narrative provided the reader with secure knowledge concerning the time and the reign in which the events worthy of remembrance had taken place, could it be distinguished from mere fiction.²⁸

Paulinus' remarks on the epistemological status of history brings us to the final postulate of this paper, concerning the place of the historical *compendium* in Franciscan religious epistemology. Ever since Augustine, Christian authors had adhered to the idea that the contingent historical object was intelligible in its context in creation,

²⁸ *Ibid.* fol.49ra.

linked with God's divine plans for mankind.²⁹ This view, which would be restated more positively by Hugh of St. Victor, in itself fuelled the medieval encyclopaedic tradition of learning, as we can see in the works of Vincent of Beauvais and others. The accumulation of knowledge about the natural world, the world of ideas, and history was part of the necessary *reparatio* after the fall. In this type of learning, history was important both as an ordering tool and as subject matter.³⁰

When, in the thirteenth century, scholastic theologians built a new paradigmatic structure of scientific knowledge on the basis of Aristotle's *Posterior Analytics* and *Metaphysics*, which in time would become a serious threat to medieval Latin encyclopaedism,³¹ the Franciscans in particular left room for other, less restricted, conceptions of learning; conceptions in which history, even if it was non-scientific, continued to be seen as indispensable, necessary for the moral and religious restoration of man. In ways reminiscent of Paulinus of Venice's discussion of *inventio* and *revelatio*, several Franciscan scholastics distinguished in their accounts of the formal properties of knowledge between the procedures of human science (involving logical methods such as definition, division, and argumentation), and those of sacred science (using poetic and rhetorical means such as narrative, exhortation, allegory, metaphor, and exemplification), which were basically affective.³²

Alexander of Hales suggested that biblical science has the special task of moulding the *affectus* (the disposition of the will) in accordance with piety. To succeed, it used the mode of precept,

²⁹ W.M. Green, "Augustine on the Teaching of History," *University of California Publications in Classical Philology* 12 (1944) 315-332; R.A. Markus, *Saeculum: History and Society in the Theology of St. Augustine* (Cambridge 1970) 154-186. Although the second book of *De doctrina Christiana* and books 11 to 22 of *De civitate Dei* indicate that he was concerned to acquire an understanding of God's plan of history, and to expound the providence of God within world history, Augustine refused to speculate about the exact time of the second coming and the last judgement.

³⁰ See Richard McKeon, "The Organization of Sciences and the Relations of Cultures in the Twelfth and Thirteenth Centuries," in: *The Cultural Contexts of Medieval Learning*, ed. J.E. Murdoch, E. Dudley Sylla (Dordrecht 1975) 151-184.

³¹ At least, that is the position of Jacques Le Goff. See his article "Pourquoi" (as in n.2) 24-25, 35.

³² Minnis, Scott, *Medieval Literary Theory* (as in n.6) 3.

example, exhortation, revelation, and prayer. A comparable emphasis is found in the works of Bonaventure and Gilbert of Tournai: pure wisdom, which comprises both cognition and affection, exists for the purpose of contemplation, in order that we may become good. Bonaventure, on the other hand, argued that this objective is reached not by mere intellectual deliberation but by the correct disposition of the will. Hence, the biblical *forma tractandi*—which has the format of poetry and the historical narrative—has to move the *affectus*, and thus avoid the analytical treatment of the sciences. The latter only has a function in theology insofar as it fosters initial understanding, and insofar as the truth of faith must be established over against heretics and unbelievers. Theology therefore is an affective science, or a *sapientia*. The theologian should move from science to this *sapientia*, by means of the study of *sanctitas*.³³

For these Franciscan scholars, therefore, it was clear that the essence of theology was primarily the exegesis of Scripture (*Sacra Scriptura*), which dealt with historical events; and that it was essentially an affective discipline, which never could be fully separated from history. In their epistemological programs man's quest for wisdom and beatitude started with a full appreciation of the created world, Scripture, and history. In these he found the traces of God's presence, power and wisdom. And through these he was able to catch a glimpse of God's essence, not unlike the way in which the encyclopaedists developed their *speculum*-imagery.³⁴ Hence the Franciscan encyclopaedist Bartholomaeus Anglicus stated in the prologue to *De proprietatibus rerum* that the soul was not able to ascend to the contemplation of the invisible unless it was guided by the consideration of visible things.³⁵ In this perspective, it was still commendable to study history. These scholars saw the study of history both as a preparatory instrument for Biblical exegesis, and as a means to supplement the *historia sacra* with a religious understanding of post-biblical times. In both cases, the

³³ *Ibid.* 200-201; Gilbert of Tournai, *De modo addiscendi*, ed. E. Bonifacio, *Testi e studi sul pensiero medioevale* 1 (Turin 1953) 265-290; Bonaventure, *Collationes in Hexaemeron*, ed. W. Nyssen (Munich 1964) 19,3.

³⁴ See especially Bonaventure, *Itinerarium mentis in Deum* I, 2, 6, 9, 12; II, 1; *De reductione artium ad theologiam*, I.

³⁵ *De proprietatibus rerum* (as in n.13) fol.12^{rb}.

study of history contributed to obtaining *sapientia*, which was an attribute of evangelical perfection.

In conclusion, it can be argued that in the ways in which Franciscan historians produced and presented their histories, they benefited from the conceptual vocabulary and the techniques refined by several generations of encyclopaedic writing. And without wishing to reduce or to equate Franciscan chronicles to encyclopaedic works, it appears that their compilers shared a common attitude to the text.

HENRY BATE'S ENCYCLOPAEDISM

GUY GULDENTOPS

The *Speculum divinatorum et quorundam naturalium* of Henry Bate (1246-1310?) is commonly regarded as "the fruit of his encyclopaedic science."¹ Thorndike has even suggested "that in composing this ponderous and pretentious work Henri Bate intended to rival the three *Specula* of Vincent of Beauvais and other thirteenth century encyclopaedias and *Summae*."² Although this interpretation is not totally untrue, it is misleading and superficial. It cannot be proved that he wanted to compete with Vincent, and moreover it is unclear in what sense Bate should be considered an encyclopaedist. In order to answer this question, I shall try to shed some light on the scope, the method and the limits of his encyclopaedism.

1. SCOPE

In our modern view an encyclopaedia is a multivolume, well-ordered synthesis of all available knowledge, including also biographies of important persons, a bibliography on every subject and many diagrams.³ Bate's *Speculum* is not conceived with such a rationalistic paradigm in mind. Even though his work is composed of twenty-three bulky parts, it disregards several disciplines, it contains no biographies nor any bibliography, it is not illustrated, and above all the *Tabula capitulorum* displays "little apparent

¹ Cf. E. Van de Vyver, *Henricus Bate. Speculum divinatorum et quorundam naturalium*. Tome I (Louvain/Paris 1960) xvi; T. Gregory, "Le grandi enciclopedie," in: id., *La filosofia medievale*, VI, *I secoli XIII e XIV* (Milano 1975-76) 221-232; E. Poulle, "Henry Bate of Malines," in: *Dictionary of Scientific Biography*, VI (New York 1972) 272-274. Thus far, Parts I-VII and XI-XII have been edited by E. Van de Vyver, H. Boese and C. Steel; we are preparing an edition of Parts XX-XXIII (Leuven University Press).

² L. Thorndike, "Henri Bate on the Occult and Spiritualism," *Archives internationales d'histoire des sciences* 7 (1954) 134.

³ Cf. R.L. Collison, "Encyclopaedia," in: *Encyclopaedia Britannica. Macropaedia*, VI (Chicago 1974) 779-780.

logic.”⁴ However, if the meaning of “encyclopaedia” is enlarged, one must agree that the *Speculum* is an encyclopaedic text. This may be evidenced by a discussion of some programmatic passages.

In the Dedicatory Letter and in the Proem of the “Mirror of divine things and some natural things” the author starts by explaining the project he has undertaken at the request of his pupil and patron, Guy of Avesnes, bishop of Utrecht. His principal subject is “the brightness, unknown to most men, of the truly noble beings.” In other words, he primarily intends to speculate upon the intellectual substances, that is, upon the human soul, the celestial intelligences and God, but as the oxymoron *ignota claritas* suggests, that speculation turns out to be very difficult for man, though those divine (or incorruptible) entities are in themselves most knowable. Therefore “incidental digressions” are inserted so as to elucidate the main subject. In these interpolations the author aims to “touch as many as possible other questions and doubtful problems, constituting the more established parts of philosophy”; at the same time he endeavours to reunite into a real harmony the superficial dissonances between Plato and Aristotle. Relying on Albertus Magnus, Bate argues that the junction of both philosophical systems perfects philosophy: for whereas Plato directs his aspirations, insofar as he judges it possible, towards the divine, and searches the remote and primary causes of reality, Aristotle mostly philosophises in the line of man’s empirical knowledge and studies the proximate and secondary causes.⁵ As an Aristotelian and Platonic philosopher, Bate is interested in the terrestrial world as well as in the heavenly and supracelestial spheres, and in his attempt to understand the whole cosmos he pays special attention to the divine influence on natural things.⁶

Further, Bate emphasises that his intention consists in providing

⁴ Cf. Thorndike, “Henri Bate” (as in n.2) 134.

⁵ Cf. *Speculum* 23.17, where Bate quotes Albertus, *Metaphysica*, 1.5.5 ; ed. B. Geyer (Monasterium Westfalorum 1960) 89 ll.85-87; see also *Speculum* 12.1 (122 ll.102-109).

⁶ This influence is observable on earth in the motion of heavy and light elements (*Speculum* 20.24), in the tides (18.10), in the workings of a magnet (20.13), in the generation of animals (20.30), in dreams (17.18; 19.7; 23.7), in the appearance of spiritual bodies (19.36), and in the musical harmony of the heavenly spheres (22.23).

an all-embracing survey of the scientific and philosophical knowledge. Just like in a *summa* he wants to examine problems which occur in natural philosophy, in metaphysics and in "any other sciences."⁷ Indeed, his philosophy of nature is not confined to Aristotelian physics, that is, to a general theory of mobile being, but also comprehends psychology, zoology and astronomy; in the metaphysical sections he describes being *qua* being, the divine movers of the spheres and God. The meaning of the phrase "any other sciences" is vague, but one could think of logic, mathematics, optics, history or moral philosophy, although these sciences are not systematically developed and occupy only an extremely small place in his *Speculum*. Even if Van de Vyver has correctly remarked that the major part of the *Speculum* is organised as "a long series of *quaestiones de anima*,"⁸ its horizon is broader, and yet Bate has not dealt with every knowable thing (*omne scibile*): mechanical arts, grammar, pedagogy, political philosophy, literary theory, and scriptural theology are fields which the author has let lie fallow.

However, despite the rarity of biblical quotations and reminiscences his *Speculum* has ultimately a religious scope. This is clearly expressed in the final prayer:

Since we principally intend with our treatise to speculate on divine beings in order to ascend through them finally to some kind of speculation of You, who are the God of all gods, in accordance with the grace and capacity You have given to us, therefore we have judged that the title of this compilation and little work ought to be named after the more worthy subject *Mirror of Divine Things*.⁹

2. METHOD

Bate never denied that his work is a compilation.¹⁰ In this he does not differ essentially from other medieval encyclopaedists,¹¹ but there are some features that distinguish Bate's method of compiling. First, as he has announced in his Dedicatory Letter, he con-

⁷ *Speculum* 20.29.

⁸ Cf. Van de Vyver, *Henricus Bate* (as in n.1) xviii.

⁹ *Speculum* 23.25.

¹⁰ Cf. Epistola (3 l.16 - 4 l.53).

¹¹ Cf. M. de Boüard, "Réflexions sur l'encyclopédisme médiéval," in: A. Becq, *L'encyclopédisme* (Paris 1991) 282-283.

forms his "style of writing and mode of reasoning" as much as possible to "the words of the philosophers and other wise men." Thus, about seventy percent of his encyclopaedia consists of literal quotations, borrowed from an enormous variety of Greek, Latin, Hebrew and Arabic authors.

A second characteristic of Bate's compilatory method is his penchant for harmonisation. Repeatedly he suggests that a compiler has to synthesise diverse theories.¹² This method is applied not only to Aristotle and Plato, but also to many other authors. The doctrine, for instance, that everything which is in itself contingent is at the same time necessary in virtue of a superior divine cause, is confirmed according to Bate by the Platonic authors Boethius, Augustine, Hermes (i.e. Ps.-Apuleius), Iulius Firmicus, Chalcidius, and also by the Peripatetics Aristotle, Avicenna and Averroes.¹³ When we carefully read their texts, which are extensively cited in Parts XII and XXIII, we remark important differences. Bate, on the contrary, minimises them by indicating their deeper intention, and stresses the profound unanimity with connective phrases such as "it is not unreasonable that Avicenna holds in accordance with this theory of the Philosopher and the Commentator."¹⁴

The conciliatory tendency does not prevent the compiler from juxtaposing divergent views. This is a third characteristic of his encyclopaedic cento. Even though he often comments on contradictory standpoints and explicates his preference for one of them, he is also used to leaving the decision to the intelligent reader, who "will be able to choose those arguments which are *better* supported by a *more* truthful and *more* solid reasoning."¹⁵ Bate's "prudent approach" may be interpreted as a rhetorical *praemunitio*, with which he could repel in advance any accusation of heterodoxy;¹⁶ but it should also be clear that by employing comparatives Bate apparently relativises his knowledge of truth. The criterion of truth

¹² Cf. *Speculum*, Prooemium (47 l.15); 23.25; see also M.T. Beonio-Brocchieri Fumagalli, *Le enciclopedie dell'occidente medievale* (Torino 1981) 39 & 203-207.

¹³ Cf. *Speculum* 12.17-21; 23.20.

¹⁴ *Speculum* 23.20; see also 3.12: "Consensus of Avicenna and Themistius."

¹⁵ Epistola (4 ll.35-36).

¹⁶ Cf. C. Steel, "Introduction," in: H. Boese, C. Steel, *Henricus Bate. Speculum divinatorum et quorundam naturalium*. Parts XI-XII (Leuven 1990) xv-xvi.

that guides his research is a combination of *experientia* and *ratio*.¹⁷ However, unlike modern encyclopaedic philosophers, Bate has not articulated a systematic epistemology. Therefore we are obliged to gather his scattered remarks so as to map out the boundaries upon which his knowledge chanced.

3. LIMITS OF HIS ENCYCLOPAEDIC AMBITION

As a preliminary remark it should be noticed that the frequency of modal adverbs such as "maybe" is relatively high in Bate's *Speculum*, at any rate higher than in Aquinas' *Summa contra Gentiles*.¹⁸ Whenever he is uncertain about the interpretation of a text or about a scientific or philosophical problem, he expresses his view in a hesitant manner.

The limitations with which Bate felt himself confronted are twofold. First, the channels mediating the information he was looking for restricted his knowledge. He realised that there was a gap between his ideal library and the manuscripts he actually had at his disposal. Although he has not catalogued the books he found important, it is evident that he was interested in all authors who could expand or refine his knowledge of divine and natural beings. At the same time he assumed that some Greek and Arabic texts were not yet available in Latin. In Part XI, for instance, he discusses the question as to "what is to be found concerning participation in the text of the books of Socrates and Plato." Trying to imitate Plato, some Platonic philosophers, like Proclus, have suggested that there are different modes of participation and also ideas of genera and differences. However, Bate declares: "In the books of Plato and Socrates that have reached us hitherto, namely in the *Timaeus*, the *Meno* and the *Phaedo*, we have found nothing of those theories except the following." He then quotes a passage from the *Timaeus*, observes that participation is not treated in the *Meno*, and cites some extracts from the *Phaedo*. To these quotations he adds:

¹⁷ Cf. *Speculum* 1.2 (77 ll.79-82); 22.23.

¹⁸ In Parts XX-XXIII, the average frequency of the words *forte*, *forsan*, *fortasse*, *forsitan* and *fortassis*, related to the total number of words, is about 0.06%. The frequency of those adverbs in Aquinas' *Summa contra Gentiles* is less than 0.01% (cf. R. Busa (et al.), *Index Thomisticus* I-6 (Stuttgart 1976) 657-658).

But the *Parmenides* of Plato, a book which is not yet common property among us, perhaps contains more on the subjects; that is what I understood some time ago from the interpreter or translator of that book, who had promised me to send it, but prevented by death he did not send it.¹⁹

Moreover, since other authors read by Bate alluded to other dialogues—Chalcidius mentioned the *Phaedrus* and the *Republic*, Simplicius referred in his Commentary on *De caelo* to the *Cratylus*, the *Gorgias*, the *Theaetetus*, the *Politicus* and the *Laws*²⁰—Bate must have been conscious of the poverty of his knowledge of Plato.

His attitude towards Greek and Arabic science is similar. While dealing with the order of the planets, he remarks: "Except for Geber of Spain (Al-Jabir) and Alpetragius (Al-Bitruji), all astronomical authors whose writings or books have reached us unanimously admit that the sun is the middlemost among the planets."²¹ Thus, Bate underlines on the one hand his comprehensive knowledge of astronomical literature, and intimates on the other hand that there might exist texts that he has not seen.

Besides these material problems Bate also met with textual difficulties. He was well aware of the fact that copyists make mistakes. He supposes, for instance, that his copy of Alpetragius' *De motu celorum* was not corrected.²² Therefore he frequently offers variant readings, introduced by *vel*, *alias*, or *secundum aliam litteram*.²³ Although these doubles were perhaps present in a single

¹⁹ *Speculum* 11.12 (42 ll.8-10 and 44 ll.53-57).

²⁰ Cf. *Speculum* 1.32 (208 l.65) (and Chalcidius, *In Tim.* 245); 12.12 (161 ll.5-6) (and *In Tim.*, 57); 12.14 (171 ll.25-28) (and *In Tim.* 143). Bate's use of Simplicius' *In De caelo* is discussed by F. Bossier, "Traductions latines et influences du commentaire *In De caelo* en Occident (XIIIe-XIVe s.)," in: I. Hadot (ed.), *Simplicius. Sa vie, son oeuvre, sa survie* (Berlin/New York 1987) 311-320.

²¹ *Speculum* 22.9.

²² Cf. *Speculum* 22.19.

²³ *Speculum* 11.25 (89 ll.149-152): *Omnis, inquit, seira id est ordo totorum in amethectum principium et causam sursumtendit, omnia autem amethecta unius omnium principii rationem habent (secundum aliam vero litteram sic: omnia autem amethecta unus omnium princeps exhibet).* (cf. Proclus, *Elementatio theologica* 100; ed. H. Boese [Leuven 1977] 51 l.1-3); 21.4: *Et videtur, inquit, quod corpus caeleste non est necessarium in sua forma esse (alias: in suo esse forma), ...* (cf. Averroes, *Sermo de substantia orbis* [Venetiis 1562] 2, f.6H).

codex, it is also likely that Bate sometimes collated different manuscripts.²⁴ There remained, however, a more serious obstacle, viz. the deficiency of the Latin translations. Since translators (and also philosophers) are sometimes negligent in the choice of words, demonstration must be grounded on the vocabulary only inasmuch as it is sustained by reason.²⁵ Regularly Bate cites both the Arabic-Latin version of Aristotle and the *translatio Moerbekana*. Usually the direct translation from the Greek is announced as the more correct version,²⁶ but sometimes he prefers the lemma contained in Averroes' commentary, especially when he sees the opportunity for criticising Aquinas. Bate evaluates diverse interpretations and utters his preference in a cautious and not at all categorical manner.²⁷

Here the first type of limitations imposed upon Bate's knowledge, the extrinsic limits, meets the second kind, which reduce the wide range of his thought from within. Even the doctrine of Aristotle, "the outstanding Philosopher,"²⁸ displays many imperfections. Sometimes his argument is so brief that it can hardly be understood.²⁹ In Bate's view, this obscurity might be due to the fact that

²⁴ Cf. H. Boese, *Proclus. Elementatio theologica* (as in n.23) xxi-xxii.

²⁵ Cf. *Speculum* 4.33 (91-92 ll.60-65).

²⁶ The most notable example of Bate's "philological" perspicacity is found in 21.13, where he discusses Averroes' thesis that "the nature of the moon is generically more like the nature of the earth than like that of other stars." The Commentator bases this assertion on a passage from Aristotle's "Books on Animals," and takes it to mean that the moon and the earth, unlike the other celestial bodies, receive their light from something else. Bate assents to Averroes' explanation, but by comparing Michael Scot's Arabic-Latin version with Moerbeke's translation he shows that the former is corrupt. In contrast with modern scholars (A. Hyman, *Averroes' De substantia orbis* (Cambridge (Mass.)/Jerusalem 1986) 94 n.74; E. Grant, *Planets, Stars and Orbs. The Medieval Cosmos, 1200-1687* (Cambridge 1994) 459 n.126), Bate has identified precisely the source from which Averroes drew: "the 17th book (of the Arabic translation of *De animalibus*), which is the third book *De generatione animalium*" (3.11, 761b13-22, especially b22).

²⁷ In *Speculum* 20.8, for example, Averroes' interpretation of *Physics* 4.11, 219b28-29 is contrasted with Aquinas' comment; according to Bate, "Averroes' explanation seems to be more consonant with what follows in Aristotle's text."

²⁸ Cf. *Speculum* 20.9.

²⁹ Cf. *Speculum* 23.19, where a passage from the *Metaphysics* (7.5, 1031a2-10) is discussed; Bate quotes the comments of Aquinas (*In Metaph.* 7.4, nrs. 1350-1) and Averroes (*Comm. in Metaph.* [Venetiis 1562] 7.19, f.167M-168E) and also refers to Avicenna (*Liber de prima philosophia* 2.1 (ed. S. Van Riet [Louvain/Leiden 1977] 66 ll.21-29).

Aristotle did not like to unveil his esoteric knowledge about separate substances and spiritual bodies to everyone.³⁰

Moreover, Aristotle's theories are not absolutely true and complete. The scientific method handed down by the Philosopher does not teach anything about individuals, because real things on earth are corruptible and infinite, and because common words fall short in describing their occult properties. Science that proceeds by means of universal concepts is not a perfect understanding of reality as it is in itself. Bate, however, believes in the possibility of "another, more real science," though it is difficult and perhaps incomprehensible for man. Such a science is concerned with things that are not *per se* necessary, and with accidental or particular events. So, one could have knowledge about a past or future eclipse, about the Antichrist, or one could make astrological predictions, at least if it were possible to know everything happening in heaven and on earth.³¹ In fact, men endowed with an excellent brain are able to foresee the future in prefigurative dreams which they receive from the divine movers through the influence of the heavenly bodies.³²

In a chapter which Nicholas of Cusa marked in the margin, Bate argues against Averroes, who maintained that Aristotle had not said anything without proving it. According to Bate, "we could reply that not all his proofs are necessarily conclusive and that similarly they do not agree in all respects with the things perceived by sense."³³ Bate illustrates this with concrete errors made by Aristotle: the first heaven, for instance, is not the sphere of the fixed

³⁰ Cf. *Speculum* 19.24.

³¹ Cf. *Speculum* 6.10 (35-37 ll.41-125); Bate quotes (among other texts) Avicenna, *Liber de prima philosophia* 10.1 (ed. S. Van Riet [as in n.29] 529 ll.47-49). See also: C. Steel, "The Individuation of the Human Intellect. Henry Bate's Platonic-Nominalistic Position," in: J.A. Aertsen, A. Speer (eds.), *Individuum und Individualität im Mittelalter* (Berlin/New York 1996) 230-248, esp. 235-239.

³² Cf. *Speculum* 23.7.

³³ *Speculum* 2.15 (61 l.16 - 66 l.36) (Bate quotes Averroes' *Comm. In De generatione* 1.38 (ed. F.H. Fobes, S. Kurland, Aver. Lat. 4.1 [Cambridge (Mass.) 1956] 50 l.54); cf. E. Van de Vyver, "Annotations de Nicolas de Cuse dans le Ms. Bruxelles, Bibliothèque royale, 271," in: id., *Henricus Bate* (as in n.1) 215-227. This chapter refutes the view that scholastic philosophy is purely dogmatic; Aquinas also holds that arguments based on human authority are the weakest kind of arguments (*Summa theologiae* 1.1.8, ad 2).

stars but the crystalline heaven;³⁴ in contrast with Aristotle's geography, there are beyond the tropic of Cancer habitable islands, which are mentioned by Ptolemy, and also beyond Iceland, almost under the North Pole, the earth is populated;³⁵ finally, "certain experience" shows that menstruation is not related to the waning of the moon.³⁶ Bate concludes that if there are errors in Aristotle's expositions on corruptible things, about which man has plenty of information, "it is not astonishing that he could be mistaken or wrong with regard to insensible and incorruptible things, because he was a man just as also other people are or have been."

Thus, the philosophy of the Philosopher is far from perfect. Furthermore, many hidden properties in nature cannot be understood by humans; many things, like the circle's quadrature, are knowable but not yet known; and we do not have evident and certain notions of all natural things.³⁷ *A fortiori* cosmological and metaphysical questions are extremely problematic. As the heavenly spheres are remote from our senses, meteorological circumstances, which often change imperceptibly, cause visual errors, and a lot of mistakes are due to the observer himself, especially when astronomical instruments are employed. The construction of precise instruments and their correct installation is such a difficult task "that few people would believe it, except those who have frequently tried it."³⁸ Only inexperienced men would assert that astronomical data can be determined exactly with astrolabes; and when one endeavours to discover eclipses by means of astronomical tables, errors occur, not only concerning the size of the eclipses but also concerning their time and place. Nonetheless, Bate trusted that

³⁴ Cf. Aristotle, *De caelo* 2.14, 296a34-b1. See also *Speculum* 22.4-5; there Bate attempts to prove that in Aristotle's view the heaven of the fixed stars is the "secondarily first sphere," i.e. the first visible sphere.

³⁵ Cf. *Meteorologica* 2.5, 362a32-b30; Ptolemy, *Syntaxis mathematica* 2.6. Bate further tells that according to Norwegians and merchants who had travelled to Greenland, it is night there for half of the year.

³⁶ Cf. *Historia animalium* 7.2, 582a34-35; *De generatione animalium* 2.4, 738a16-21.

³⁷ Cf. *Speculum*, 7.10 (37 l.133 - 38 l.139), where Bate alludes to Aristotle's *Categories* (7, 7b30-33) and *Meteorologica* (4.12, 389b26-390b2).

³⁸ Cf. *Speculum* 22.17. This chapter was paraphrased by G. Pico della Mirandola in his *Disputationes adversus astrologiam divinatricem*, ed. E. Garin (Firenze 1946-52) 322 l.19 - 324 l.24.

the locations and conjunctions of the planets could be found with the aid of his own *Tables of Malines*, which he had corrected three times by taking into account ancient and contemporary observations.³⁹

Whatever satisfaction his *Tables* gave him, he acknowledged that he could not determine the precise answer to several cosmological questions. Are Venus and Mercury above or below the sun, and in what order?⁴⁰ How must the anomaly of the sun's motion be explained?⁴¹ How many spheres are there (47 or 55)? Can the musical harmony of the spheres be heard by man?⁴² In addition to these technical problems, a more profound difficulty besets cosmology, namely the fact that the union of matter and form in the heavens differs from terrestrial composites. Transitory beings composed of body and soul as well as the celestial composites are called "animals" in an equivocal sense, namely according to priority and posteriority: heavenly animals are prior because they cause terrestrial life.⁴³ Hence, Bate recognises that a cosmological theory involves figurative language: for instance, if one states that the divine movers touch the heavenly bodies, this "contact" is a metaphor.⁴⁴ Consequently, the nature of the heavens cannot perfectly be known, but since all things are joined into one complete being, one can provide some definition of the universe by reasoning from the effects (*a posteriori*): "the heaven itself is a kind of spiritual body animated by an intellect or a kind of spiritual animal capable of intellection."⁴⁵

While man can understand only a little bit about celestial bodies, he can grasp even less of the divine movers and of God, who is the Prime Mover.⁴⁶ Bate stresses that our human condition is too weak

³⁹ Cf. *Speculum* 22.18 and Addition.

⁴⁰ Cf. *Speculum* 22.9-10.

⁴¹ Cf. *Speculum* 22.21.

⁴² Cf. *Speculum* 22.23.

⁴³ Cf. *Speculum* 21.8-10, where Bate cites extensive parts of Averroes' *De substantia orbis*.

⁴⁴ Cf. *Speculum* 20.29; in 22.1 Bate says that Aristotle uses rhetorical examples in his description of the universe.

⁴⁵ *Speculum* 21.10.

⁴⁶ Cf. *Speculum* 23.1.

to comprehend "the excellence of the unknown God."⁴⁷ With an evocative pun he says that speaking about the Divine Intellect is a kind of divination: otherwise put, starting from the enigma of sensible reality, man has to guess something about God with His grace.⁴⁸ That is why Bate, after quoting Proclus' exposition on the utility of prayers, begins and concludes his philosophical dissertation on God with a Christian-Platonic prayer.⁴⁹ Although Bate unfolds a grandiose Aristotelian-Platonic theodicy, some questions remain doubtful. How could God create the universe out of nothing?⁵⁰ What is God's place in the universe?⁵¹ How are divine providence and human freedom compatible?⁵²

Both the scope and the style of Bate's philosophising have shaped his holistic and eclectic world-picture. His *Speculum* mirrors his encyclopaedic knowledge of "divine and natural things." But thanks to his wide reading and curiosity he is keenly aware of certain pitfalls threatening his encyclopaedic ambition. Because of material and cognitive difficulties, Bate often qualifies his exposition with modal adverbs, proposes divergent interpretations of ancient doctrines, or puts forward various solutions to much debated aporias.

Despite these problems Bate does not yield to scepticism, but preserves his scholastic confidence in the limited power of human knowledge. This modesty is summarised in a beautiful sentence of Aristotle, which Bate quotes approvingly in several contexts: "As the owls' eyes are to daylight, so is the intellect of our soul to the entities which are by nature most manifest."⁵³

⁴⁷ Cf. *Speculum* 20.9; 23.10; 23.25.

⁴⁸ Cf. *Speculum* 23.10; 23.14.

⁴⁹ Cf. *Speculum* 23.10 (compare with Plato, *Timaeus* 27C, and Proclus, *In Timaeum*, ed. C. Steel (Leuven 1985) 571-572 ll.3-39; 23.25.

⁵⁰ Cf. *Speculum* 20.9.

⁵¹ Cf. *Speculum* 21.7; 23.10.

⁵² Cf. *Speculum* 23.20; 23.22-23.

⁵³ *Speculum*, Prooemium (59 ll.65-67; *ibid.* 68 ll.9-11); 6.10 (37 ll.131-132); 23.1; 23.9-10; cf. Aristotle, *Metaphysics* 2.1, 993b9-11 (in the Middle Ages νυκταεπίς was rendered *nicticorax*, whereas modern scholars interpret it as "bat").

CULTURAL AND POLITICAL USES

COMPLEAT MEN, WOMEN AND BOOKS: ON MEDIEVAL ARABIC ENCYCLOPAEDISM

GEERT JAN VAN GELDER

Once upon a time, “in the golden prime of Haroun al-Rasheed,” there lived a young girl in Baghdad whose ill fortune it was to be the property of a good-for-nothing spendthrift who wasted his inherited riches. Offered for sale, at her own instigation, to the caliph, in order to save her master from utter penury, she goes on to justify the stiff asking price by successfully showing off her various accomplishments. Needless to say, for such are the rules of storytelling, the caliph rewards her richly and restores her to her loving but dull-witted master, who is made the caliph’s boon-companion, surely undeservedly. They live happily ever after.

This is the bare summary of what sounds like a rather trite story of a type often found in *The Thousand and One Nights*, from which the story is in fact taken.¹ What makes the tale interesting is, first of all, that the heroine, whose name is Tawaddud or “Affection,” succeeds not merely by being pretty, witty and young (she is said to be fourteen years of age), but by being a walking and talking encyclopaedia. She claims to be well-versed in virtually all fields of knowledge: grammar, poetry, religious law, the Koranic sciences, musicology, mathematics, history, geometry, philosophy, medicine, logic

¹ German translation in Enno Littmann, *Die Erzählungen aus den Tausend-undein Nächten* (Wiesbaden 1953) 3.626-96, French translation and study: Claudine Gerresch, “Un récit des *Mille et une Nuits*: Tawaddud, petite encyclopédie de l’Islam médiéval,” *Bull. de l’Inst. Fondamental d’Afrique Noire* 35 (1973) 57-175; cf. also André Miquel, “Tawaddud la servante,” in his *Sept contes des Mille et Une Nuits* (Paris 1981) 15-49. The story, which may have a Greek prototype, ended up in Spain as *La Donzella Teodor* (as in a play of that name by Lope de Vega); see e.g. Walter Mettmann, *La Historia de la Donzella Teodor: Ein spanisches Volksbuch arabischen Ursprungs. Untersuchung und kritische Ausgabe der ältesten bekannten Fassungen* (Wiesbaden 1962) (= *Abh. d. Akad. der Wiss. u. d. Lit., Geistes- und sozialwiss. Kl.*, Jhrg. 1961, Nr. 3, 71-173), Maḥmūd ‘Alī Makki, “Ḥikāyat Tawaddud al-jāriya wa-ntiqāluhā ilā l-adab al-isbānī,” *Fuṣūl* 13:2 (1994) 247-265, Claude Bremond & Bernard Darbord, “Tawaddud et Teodor: les enjeux ludiques du savoir,” in: Michelangelo Picone (ed.), *L’enciclopedia medievale* (Ravenna 1994) 253-273 (I owe this reference to Dr. B. Van Den Abeele, Brussels).

and stylistics; add to this her being skilled in chess, singing, lute-playing and dancing. She is put to the test in an extraordinary series of interrogations by leading scholars, which she survives unscathed, having dishonoured each expert by asking them a question they cannot answer, upon which they are forced to disrobe themselves. It is not quite clear whether the defrocked scholars are allowed to keep their underwear on, but the loss of face is bad enough anyway. She is only temporarily silenced when she is questioned about sexual matters, out of bashfulness and not through ignorance, for here too she turns out to be remarkably knowledgeable for a young girl.

The story is not regularly included in popular translated selections of *The Thousand and One Nights* in the West, but it is recommended reading for those desirous of a crash course in medieval popular learning and science in Islam, for it offers what might be called a miniature popular general encyclopaedia in some sixty translated pages. It is true that not all the sciences mentioned before are represented in the course of the dialogues: we hear no more of grammar, mathematics, stylistics, or geometry, for instance. What passes for "philosophy" does not deserve that name, because it is merely a strange jumble of miscellaneous facts. The religious sciences are well-represented, as could be expected; physiology and medicine, astronomy and astrology are also relatively prominent. Much of the learning is presented in the form of riddles and numerical apophthegms; not a little of it is a disjointed and rather random farrago of odds and ends, but parts of it are more systematic and coherent. Some of what it offers may pass for the common knowledge of the times, yet much is far too specialised to be widely known, such as the number of letters in the text of the Koran, or the number of bones and veins in the human body, or the names of the twenty-eight lunar mansions.

The story of Tawaddud is in itself of considerable interest. What is remarkable, moreover, is the fact that it is included in that vast collection of tales, stories, legends, romances, fables, anecdotes, farces and jokes called *The Thousand and One Nights*. After all, this collection was never part of *belles-lettres* proper until it was raised to the status of world literature and universal classic thanks to western readers and scholars during the past three centuries or so. To the pre-modern, and not only pre-modern, Arab intellectual

élite it was merely popular, vulgar stuff, to be enjoyed by children, women and schoolteachers. So what is a decent girl like Tawaddud doing in a place like this? This walking encyclopaedia of lore and learning, only partly popular, in a collection meant for the masses?

No doubt the story was entertaining to a broad medieval audience, even though the subject matter was at times above their heads. I like to think that, at least in some cases, the story was instructive as well. Some of the ideas and facts must have stuck in the mind, just as occasionally one may actually learn and remember things seen in a television documentary for a broad public. It seems likely, but cannot be proved, that the intellectual content of the story varied according to its use in oral or written form. The story of Tawaddud is instructive in another sense: it teaches that knowledge is power, especially when attractively packaged, for both with her body and her brains Tawaddud shines brilliantly like a CD-ROM encyclopaedia. She shames the great scholars of Baghdad in its prime and wins the caliph's favour. She, a slave girl, might have set herself free, but the conventions of the genre require that she remain with her master. Anyhow, it is a well-known fact that educated slave-girls usually enjoyed a great deal more personal freedom than so-called free women in medieval Islam.²

That knowledge is power was nothing new to contemporaries of Tawaddud or of her story (the extant version of which was surely not written in Baghdad in A.D. 800 but considerably later in Egypt). Numerous sayings in favour of acquiring knowledge are put into the mouths of the Prophet Mohammed and wise men from ancient and early Islamic times. Sayings attributed to the Prophet are, for instance, "Excellence in knowledge is better than excellence in devotion," or "A scholar is superior to a worshipper to the extent that I am superior to the lowest man among you"³ Scholars are the true successors, the inheritors, of the prophets, now that there will be no more prophets after Mohammed. "Princes rule over people,"

² The fictional Tawaddud is partly based on the educated slave girls especially of early Abbasid times, about whom stories are told that may not be wholly fictional; see e.g. al-Anbārī, *Nuzhat al-alibbā'* (al-Zarqā', Jordan 1985) 93-94 (= al-Khaṭīb al-Baghdādī, *Tarikh Baghdad* (Cairo 1931) 1.411).

³ Ibn 'Abd Rabbihi, *al-'Iqd al-farīd* (Cairo 1948-1953), 2.211, al-Māwardī, *Adab al-dunyā wa-l-dīn*, ed. Muṣṭafā al-Saqqā (Beirut n.d.) 40, 43, al-Zamakhsharī, *Rabī' al-abrār* (Baghdad n.d.) 3.196.

said Abū l-Aswad al-Du'ālī, "but scholars rule over princes."⁴ Now the word "knowledge," *'ilm*, might mean very different things to different people. In the words attributed to Mohammed "knowledge" is usually interpreted as, first of all, religious knowledge, and it is surely no coincidence that the word for "scholars," *'ulamā'*, is found in English and other western dictionaries with the special meaning of "theologians." Nevertheless the word always had and still has its more general meaning of "scholars."

It is generally recognised that knowledge has no limits. "He who thinks that there is a limit to knowledge does it an injustice," another saying attributed to the Prophet.⁵ A wise man was asked, "Who knows all the sciences?" and he answered, "All people (together)."⁶ An unnamed person said, "He who deeply studies a field of learning is like someone swimming in a sea who sees no land and does not know how long or broad it is."⁷ Ibn Sirīn, who died in A.D. 728 and was famous for his piety, said, according to the sources, "Knowledge is too vast to be encompassed; therefore take the best of everything."⁸ Here, of course, we have the kernel of encyclopaedism in a nutshell. In Muslim cultural history there are two intellectual ideals, not mutually exclusive but not always easy to combine. On the one hand there is the scholar, the *'alim* (singular of *'ulamā'*), someone who possesses *'ilm*, knowledge of a particular field of learning. On the other hand there is the *adīb*, someone who possesses *adab*, which is a mixture of general erudition and good manners. The difference is nicely expressed in a saying first quoted by the great ninth-century scholar Ibn Qutayba, himself a good example of *'alim* and *adīb* combined: "If you want to be a scholar, you should aim at one field of learning; if you want

⁴ Ibn Qutayba, *'Uyūn al-akhbār* (Cairo 1925-1930) ii, 121; Ibn 'Abd Rabbih, *al-'Iqd al-farīd* (as in n.3) 2.214; more references in Franz Rosenthal, *Knowledge Triumphant: The Concept of Knowledge in Medieval Islam* (Leiden 1970) 328.

⁵ e.g. al-Māwardī, *Adab* (as in n.3) 42, Ṭāshkubrīzāda, *Miftāḥ al-sa'āda* (Hyderabad 1977-1980) 1.18.

⁶ al-Māwardī, *Adab* (as in n.3) 42.

⁷ al-Māwardī, *Adab* (as in n.3) 42.

⁸ Ibn 'Abd Rabbih, *'Iqd* (as in n.3) 2.208; a variant in Yāqūt, *Mu'jam al-udabā'* (Cairo 1936-1938) 1.73 (attributing it to 'Alī). A versification in Ṭāshkubrīzāda, *Miftāḥ* (as in n.5) 1.4.

to be an *adīb*, then take the best of everything.”⁹

George Makdisi, in his provocative work *The Rise of Humanism in Classical Islam and the Christian West*, translates the words ‘*alim* and *adīb* in this passage as “religious scholar” and “*adīb* humanist,” respectively,¹⁰ suggesting a distinction between religion and humanism. While admitting that especially in early Islam ‘*ilm* often means, first of all, religious knowledge, it seems to me that here, in the saying quoted by Ibn Qutayba in his encyclopaedic anthology, and by later authors in similar contexts, there is no question of an opposition between religion and “humanism,” or theology versus secular knowledge. The very wording of the saying, “aim at one field of learning (or knowledge)” indicates, it seems to me, that any kind of learning is intended, not just religious learning. Similarly, *adab* by no means excludes religious knowledge, as is abundantly clear from those many works that combine instruction with entertainment, often called “works of *adab*,” of which Ibn Qutayba’s ‘*Uyūn al-akhbār* is a great and seminal representative. *Adab* is not so much “humanism,” Makdisi’s preferred translation, as *paideia*, moral and intellectual education.¹¹

Nor is the real opposition in the saying that between penetrating true knowledge and superficial knowledge, the former to be praised and the latter to be condemned, even though one may find such ideas in other sayings.¹² It is simply, I believe, the contrast between specialised learning and general knowledge, which are both desirable and may even be combined.

There must be many people whose favourite reading is a desultory dabbling in general encyclopaedias. Until the age of perhaps fourteen I was one of these people, and still I find a certain delight

⁹ Ibn Qutayba, ‘*Uyūn* (as in n.4) 2.129; variants in Ibn ‘Abd Rabbihi, ‘*Iqd* (as in n.3) 2.208, 423, Yāqūt, *Mu‘jam* (as in n.8) 1.73.

¹⁰ George Makdisi, *The Rise of Humanism in Classical Islam and the Christian West, with Special Reference to Scholasticism* (Edinburgh 1990) 110.

¹¹ See e.g. Rosenthal, *Knowledge* (as in n.4) 200, 284; Tarif Khalidi, *Arabic Historical Thought in the Classical Period* (Cambridge 1994) 83.

¹² See e.g. Franz Rosenthal, *The Technique and Approach of Muslim Scholarship* (Rome 1947) 60-63: “Specialization and Encyclopedism,” quoting al-Jāḥiẓ (now shown to be pseudo-Jāḥiẓ, viz. al-Kisrawī), *al-Ḥanīn ilā l-awṭān*, see al-Jāḥiẓ, *Rasā’il* (Cairo 1964 [date of preface]) 1.383 and al-Šūlī, *Akhbār Abi Tamām* (Cairo 1937) 6-7.

in this rather shallow intellectual form of zapping. We all do it, to some extent, for what is reading a newspaper or watching television other than a daily gleaning of unrelated snippets of information of dubious value and truth? We live in a time, as someone whose name I forget put it, of *Homo sapiens*. After such desultory reading comes the purposeful employment of the encyclopaedia, reading specific parts with a specific aim; but I am surely not alone in finding it hard not to be distracted by any other parts that are wholly unrelated but happen to strike the eye. Yet encyclopaedic knowledge provides not only pleasure but power too, at least in some circles; and this was particularly true for medieval Islamic society.

Power could only in exceptional cases be derived from one's birth. It was usually divided between the military and the civil administration which, ideally, co-operated and in practice worked out some kind of compromise. High officials and senior civil servants are normally designated as *kuttāb*, singular *kātib*, literally "scribe" or "secretary." They qualify for their function primarily by their knowledge. In a famous "Epistle to the Scribes" from the middle of the eighth century the ideal *kātib* is said to have made "a thorough study of every field of learning, or, if he has not studied it thoroughly, then at least sufficiently." In the same epistle the *kātib* is specifically enjoined to study the various kinds of *adab* and religious knowledge, such as Koran, the Arabic language, poetry, history.¹³

The links between knowledge and power in a somewhat later period form the subject of a couple of interesting recent books by American scholars. Michael Chamberlain¹⁴ explains how status and power are acquired by élites in a continuous struggle, relying far less than in the medieval West on inherited rights and documents or on corporations and institutions. Being recognised as a great scholar gave prestige and power through appointments in *madrasas*, the colleges of higher learning founded not so much by the

¹³ 'Abd al-Ḥamīd Ibn Yaḥyā, *Risāla ilā l-kuttāb*, in Muḥammad Kurd 'Alī (ed.), *Rasā'il al-bulaghā* (Cairo 1954) 223, 225; cf. the English translation in Ibn Khaldūn, *The Muqaddimah*, tr. by Franz Rosenthal (Princeton 1967) 2.30-31; cf. Khalīdī, *Arabic Historical Thought* (as in n.11) 90-91.

¹⁴ Michael Chamberlain, *Knowledge and Social Practice in medieval Damascus, 1190-1350* (Cambridge 1994).

state as state institutions, but by the rich and powerful, even by military rulers, as a private initiative and as a pious deed, bestowing honour in this world and reward in the world to come. The character of such institutions and their foundation are described by Jonathan Berkey.¹⁵ Both Chamberlain and Berkey stress the informal but intensive character of teaching: no official curricula prescribed by a body of authorities, no centralised examination system as in medieval China; but a very strong personal bond between teacher and pupil. In this education system, as Chamberlain says,

exposure to many fields and many shaykhs was the ideal, rather than specialized training in single subjects. When biographers praised learned men, it was breadth of knowledge that they most lauded. A scholar learned in many fields was a "*kāmil*" ..., a "complete" man.¹⁶

I should add here, perhaps, that the term *kāmil*, "complete," was loosely applied as one honorific epithet among many;¹⁷ no doubt partly with an allusion to the esoteric mystical concept of the "Complete, Universal or Perfect Man," *al-insān al-kāmil*, which has nothing to do with the encyclopaedic knowledge of an *uomo universale*. Chamberlain gives some examples of such intellectually "complete" persons and observes, correctly, that in many cases there was no great divide between the Two Cultures of sciences and liberal arts: many physicians, for instance, were well-versed in *belles-lettres* or jurisprudence, or *vice versa*.¹⁸ Numerous scholars were at home in philosophy, a subject normally taught privately and

¹⁵ Jonathan Berkey, *The Transmission of Knowledge in Medieval Cairo: A Social History of Islamic Education* (Princeton 1992). On the absence of corporate institutions see already S.M. Stern, "The Constitution of the Islamic City," in: A.H. Hourani & S.M. Stern (eds.), *The Islamic City: A Colloquium* (Oxford 1970) 25-50, esp. 47-49 (paper originally delivered 1965).

¹⁶ Chamberlain, *Knowledge* (as in n.14) 86.

¹⁷ Particularly common is the term *mutafannin*, "multifarious, well-versed in many branches of learning."

¹⁸ Traditionally Arabic culture distinguished between the "Arabic" and the "non-Arabic" sciences, which very roughly correspond with the "Two Cultures"; the former including language, literature and religious studies, the latter (also called "sciences of the Ancients") philosophy, mathematics and the natural sciences. Other divisions, none of them wholly satisfactory, are found; a tripartition results if philology and religion are separated, thus giving three spheres which may be briefly designated as the study of the Word (religion), the word (language and literature) and the world (natural sciences, mathematics, philosophy).

not in *madrasas*. Especially rewarding is the great thirteenth-century biographical dictionary of physicians by Ibn Abī Uṣaybi‘a. Here we find not only the great prodigies like Avicenna, Averroes and other well-known philosophers whose knowledge and output was encyclopaedic, but also scores of lesser figures, now mostly forgotten, who excelled in many unrelated fields of learning. Let us take one example, Kamāl al-Dīn Mūsā Ibn Yūnus from Mosul, who died in 1242, now nearly forgotten: he has no entry of his own in the *Encyclopaedia of Islam*. The famous biographer Ibn Khallikān wrote of him:

He delved deeply in all fields of knowledge, combining more sciences than anyone else before him. He was without equal in mathematics. Jurists said of him that he had a perfect knowledge of twenty-four branches, including [Shāfi‘ī] law ... he was proficient in legal theory and theological dogmatics ... In philosophy he knew logic, natural sciences and metaphysics; also medicine. He knew geometry, astronomy, the science of cones, the *Almagest* [on astronomy], planimetry¹⁹, ... various kinds of arithmetic and algebra; music; land surveying ... He knew manners of producing magic squares like no one else. He made a thorough study of Arabic grammar and morphology to the point of being able to teach [standard works such as] *The Book of Stbawayh* ... He was well-versed in Koranic exegesis, Prophetic Tradition and early Islamic prosopography. He had memorised much of history, pre-Islamic Arab history, poetry and various bits of information. Jews and Christians studied the Torah and the New Testament under him, acknowledging that he could explain these two books better than anyone else. His knowledge in each field of knowledge was as if he were a specialist in it and knew no other science.²⁰

One day an ambassador arrived at the court of Badr al-Dīn Lu‘lu’, the ruler of Mosul, with some questions on matters of astronomy, geometry and other things “from the *anbarūr*, the king of the Franks, who was a man well-versed in many branches of knowledge,” obviously the Holy Roman Emperor Frederick II. It was our Kamāl al-Dīn who could answer all the questions.²¹ Kamāl al-Dīn

¹⁹ Reading *mabsūṭāt*, given as a variant for *mutawassīṭāt*.

²⁰ Loosely translated from Ibn Khallikān, *Wafayāt al-a‘yān* (Beirut 1968-1972) 5.311-313; cf. Ibn Abī Uṣaybi‘a, ‘*Uyūn al-anbā’*, ed. Nizār Riḍā (Beirut n.d.) 410-412, C. Brockelmann, *Geschichte der arabischen Litteratur*, 1. Supplementband (Leiden 1937) 859.

²¹ Ibn Abī Uṣaybi‘a, ‘*Uyūn* (as in n.20) 410-411; cf. al-Qazwīnī, *Āthār al-bilād*

Ibn Yūnus led a rather quiet life, being on good terms with the local ruler, teaching, writing a few books—no encyclopaedia—and fathering sons who also became respected and now forgotten scholars in Mosul.

It would be interesting, but outside the scope of the present paper, to study the careers of such all-round or at least “polygonal” scholars and compare these to the careers of those of their colleagues who pursued only one branch of learning.²² One thing is clear: being a polymath was by no means an obstacle on the road to high positions among scholars and even among the ruling class. Not all careers were equally brilliant. A certain Aḥmad al-Rashid al-Uswānī (d. 1166), from Aswan in Egypt, now completely forgotten, is described as “a prosaist, poet, jurist, grammarian, lexicologist, prosodist, historian, logician, engineer, well-versed in medicine, music and astronomy.” He was the author of several books and treatises and was active as a judge posted in Yemen. Here, perhaps over-confident of his intellectual powers, he proclaimed himself caliph (in spite of his unprepossessing features, according to the sources), even got himself some followers and had coins struck in his name. He was apprehended and imprisoned but soon released, rather amazingly. Some time afterwards he became involved in Egyptian politics and was hanged and crucified.²³

The relationship between scholarship and power is often an un-

(Beirut 1979) 463, E. Wiedemann, “Fragen aus dem Gebiete der Naturwissenschaften, gestellt von Friedrich II, dem Hohenstaufen,” *Archiv für Kulturgeschichte* 11 (1914) 483-485.

²² For physicians said to be proficient in many fields including the humanities, see e.g. Ibn Abī Uṣaybi'a, *ʿUyūn* (as in n.20) 331, 341, 343, 345, 349, 371, 376, 389, 402, 407, 410, 414, 427, 429f., 436, 482, 485, 489, 501, 521f., 533, 534, 535 (several persons), 536, 538, 571, 584f., 586, 590, 600, 614f., 630, 635, 646, 647, 648, 650, 651, 659, 660, 663, 668, 669f., 671, 683f., 703, 721, 758, 759, 761, 767f. Conversely, in works on philologists and grammarians there are many who are said to be skilled in one or several of the natural sciences or mathematics; see e.g. al-Qifṭī, *Inbāḥ al-ruwāt*, ed. Muḥammad Abū l-Faḍl Ibrāhīm (Cairo 1950-1973) 1.76, 211, 248, 293, 2.15, 99, 120, 121, 150, 185f., 193f., 220, 231, 251, 285, 294, 377, 3.65, 107, 229f., 4.40. The number of scholars versed in philological as well as religious studies is too large to be listed.

²³ Yāqūt, *Mu'jam* (as in n.8) 4.51-66, Ibn Khallikān, *Wafayāt* (as in n.20) 1.16-64, al-Suyūṭī, *Bughyat al-wu'āt*, ed. Muḥammad Abū l-Faḍl Ibrāhīm (repr. Beirut 1979) 1.337-338.

easy one, as we all know. "The worst scholar," an Arabic saying goes, "is he who sits with rulers, and the worst ruler is he who sits with scholars."²⁴ There are numerous warnings addressed to scholars against associating with those in power. The great scholar Ibn Khaldūn (d. 1406), himself involved in many affairs of state during his career, entitled a section in his *Introduction* "On the fact that scholars, of all people, are least familiar with the ways of politics"; he argues that politics is best left to people of mediocre intelligence.²⁵ Nevertheless, individual scholars could at times exercise considerable power; as a body they had far more, since few rulers could afford to ignore their opinions and risk being branded a sinner or infidel.

I could mention many names of polymaths who were specialists in many fields and who produced books on widely diverging fields of knowledge, and try to show how this encyclopaedic knowledge procured power for them, either through religion, as one of the 'ulamā', or through the civil administration, as a leading *kātib* or vizier. However, I shall not bore you with yet more unfamiliar names. Suffice it to mention that the ideal of encyclopaedic knowledge was supported by those authors who wrote on the classification of the sciences and their interrelationships (note that these texts, usually rather short, are not themselves encyclopaedias). Al-Tawḥīdī, around A.D. 1000, in his *Epistle on the Sciences*, complains that some people maintain that logic and jurisprudence, or philosophy and religion, have nothing to do with one another.²⁶ Ibn Ḥazm, half a century later, stresses in his *Ranking of the Sciences* that all fields of knowledge hang together and are mutually indis-

²⁴ al-Zamakhsharī, *Rabī' al-abrār* (Baghdad 1976-1982) 3.219, al-'Āmilī, *al-Mikhlāt* (Beirut 1985) 20; cf. Ibn 'Abd al-Barr, *Bahjat al-majālis* (Beirut 1982) 1.332, al-Rāghib al-Isfahānī, *Muḥaddarat al-udabā'* (Būlāq 1287/1870) 1.18, al-'Abī, *Nathr al-durr* (Cairo 1980-1990) 4.234; more references in Rosenthal, *Knowledge* (as in n.4) 330.

²⁵ Ibn Khaldūn, *al-Muqaddima*, ed. 'Abd al-Wāḥid Wāfī, (Cairo 1962) 4.1245-1247, transl. Franz Rosenthal, *The Muqaddimah: An Introduction to History* (Princeton 1967) 3.308-310.

²⁶ "Épître sur les sciences (*Risāla fī l-'ulūm*) d'Abū Ḥayyān at-Tawḥīdī (310/922 (?) - 414/1023)," *Introd., trad., gloss. technique, manuscrit et édition critique* par Marc Bergé, *Bull. des Ét. Orientales* 18 (1963-1964) 241-297, see 257 (trad.) and 297 (Arabic).

pensable; even though it may not be possible to encompass them all, he adds, one should acquire at least a share of each of them.²⁷ In particular he warns against the dangers of limiting oneself either to the so-called "Arabic sciences," meaning linguistics, stylistics, religious studies etc., or to the non-Arabic sciences, which include the exact and natural sciences.²⁸ The purpose of knowledge, we find in other writings, is "the completion, or perfection of our human souls," among the requirements being an insight into "every science on its own and its status in relation to other sciences" and "to compare the various sciences in order to know which is more noble and which is more certain."²⁹

Now it remains for me to make yet one more step: from perfect souls or complete human beings to complete books; from encyclopaedic knowledge to encyclopaedic texts. Obviously, encyclopaedias are by no means a prerequisite for encyclopaedic knowledge: it suffices to study with many different teachers and to read many different books; and that was the regular way, the generally accepted method to do it. I have dwelt at some length on persons rather than books because I was asked to speak on the role of encyclopaedic knowledge in the service of political, religious or cultural aims, in other words, on the power of encyclopaedic knowledge. Now power is not found primarily in books but in people who may use knowledge and books. In the history of the Arabs there were far more walking encyclopaedias, people who embraced vast and diverse knowledge, than there were books of this nature. Knowing facts gives a person status; but conversely any fact, any text derives its status from persons, who compose the text or transmit it, preferably orally, the written text being merely a convenient mnemonic device. In Arabic-Islamic culture a text without a name, like the

²⁷ Ibn Ḥazm, *Risālat marātib al-'ulūm*, in his *Rasā'il*, ed. Iḥsān 'Abbās (Beirut 1983) 3.61-90, see 81, 83. See also e.g. Ṭāshkubrīzāda, *Miftāḥ* (as in n.5) 1.4, 24.

²⁸ Ibn Ḥazm, *Risālat marātib al-'ulūm* (as in n.27) 87-88.

²⁹ Ibn al-Akfānī, in J.J. Witkam, *De Egyptische arts Ibn al-Akfānī (gest. 749/1348) en zijn indeling van de wetenschappen: Editie van het Kitāb irshād al-qāṣid ilā asnā al-maqāṣid met een inleiding over het leven en werk van de auteur* (diss. Leiden 1989) 13-14 (Arabic), 171-172 (Dutch summary). For the expression "completion/perfection of human souls" (*takmil al-nufūs al-bashariyya*) as the aim of knowledge, see e.g. the introduction on 'ilm in the seventeenth-century encyclopaedic bibliography Ḥājji Khalīfa, *Kashf al-zunūn* (Istanbul 1971) 1.50, 58.

anonymous *Thousand and One Nights*, has no status to speak of.

Are there any "complete books" in Arabic literary history just as there are "complete people"?³⁰ Not all that many works are true general encyclopaedias in the usual modern sense. One will search in vain for a medieval Arabic term for "encyclopaedia"; likewise one will search in vain for a medieval Arabic *Britannica* or *Larousse* or *Brockhaus*; but there are many works that may be called encyclopaedic.³¹ Here a small number of them will be briefly discussed. Ibn Qutayba has been mentioned before as a ninth-century combination of *ʿālim* and *adīb*; he wrote not merely authoritative works on Koranic sciences, Islamic jurisprudence, the Arabic language and early poetry and history, but also compiled the first so-called *adab* encyclopaedia, more properly called an encyclopaedic anthology. It is thematically arranged, some 1250 pages in a modern edition, divided into ten books as follows: authority/the ruler, war, greatness in this world, qualities and faults, (religious) knowledge and rhetoric/oratory, piety, friends (i.e. relation between equals), needs (i.e. relations between unequal parties), food, women (and pleasantries); all this with many subdivisions. It consists not so much of discursive prose as of countless quotations in prose and poetry; apophthegms, maxims, anecdotes, homilies, jokes, titbits of information. Together with two other books by the author, on philology and history, it is meant to serve as a complete course in morals and the humanities. It could equally be read fruitfully by rulers, as a "mirror for princes" as by any decent intellectual.

This seminal work, entitled *ʿUyūn al-akhbār* or *Choice Reports*, became popular because of its combination of impersonality, ortho-

³⁰ "The Complete (work)" (*al-Kāmil*) is the title of some books, notably one by the philologist al-Mubarrad (d. 898), an unordered mine of information on language, poetry and history, and a large "world history" by Ibn al-Athīr (d. 1234). Near-synonyms of *kāmil* such as *wāfi* are also common in book titles.

³¹ For a survey of Arabic encyclopaedias and encyclopaedic works, see Ch. Pellat, "Les encyclopédies dans le monde arabe," *Journal of World History* 9 (1966) 631-658, repr. in his *Etudes sur l'histoire socio-culturelle de l'Islam*, London, 1976; id., "Mawsūʿa," in: *The Encyclopaedia of Islam*, New Edition (Leiden 1960-) 6.903-907, with more references. See also the entry "Encyclopedias and Dictionaries, Arabic and Persian," in: *Dictionary of the Middle Ages* (New York 1982-89) 4.442-446 (Sergei Shuiskii).

doxy, breadth and entertainment value. An expert on Ibn Qutayba, Gérard Lecomte, has written that

Ibn Qutayba put his literary career at the service of the enterprise of the restoration of Sunnism [sometimes rendered as "Orthodoxy"] which was undertaken by [the caliph] al-Mutawakkil and his chief helpers.³²

The encyclopaedic *ʿUyūn* would seem to fit into this enterprise, even though Ibn Qutayba's more specialised works on theology made a clearer contribution to it than the encyclopaedic anthology, which seems to advocate a fairly general all-embracing all-Islamic education rather than bolster a particular politico-religious Sunni, anti-rationalist or anti-Shīʿite identity. The same may be said of the several emulations it inspired in subsequent ages. Nor are these texts, for all their orthodoxy, excessively pious, since they all include material of a sometimes startling frivolity, of a kind that one would certainly never find in the works of twentieth-century Muslim scholars and theologians,³³ nor, I am told, in medieval encyclopaedic texts in European or Byzantine Christianity.

The earliest of these emulations, the great *Unique Necklace* (*al-ʿIqd al-farīd*)³⁴ by Ibn ʿAbd Rabbih (d. 940), was written in Spain under the Umayyad dynasty which in the East had been ousted by the Abbasids. Naturally its chapters on the history of the caliphs are mainly concerned with the Umayyads in East and West and do not give much information on the Abbasids; yet the work as a whole is overwhelmingly based on Eastern Arabic material. Early Abbasid caliphs such as al-Manṣūr, al-Mahdī, Hārūn al-Rashīd and al-Maʾmūn are among the most often quoted names for the period after 750, the year of the fall of the Umayyads in the East. If *al-ʿIqd al-farīd* has a purpose, it is to give the Spanish Arabs a thorough general Arabic and Islamic education, not coloured by sectarian or

³² *The Encyclopaedia of Islam* (as in n.31), s.v. "Ibn Qutayba" (3.846a). "Sunnism" is not opposed here to Shīʿism but to the "rationalist" movement in Muslim theology called Muʿtazilism.

³³ See for instance the last part Ibn Qutayba's *ʿUyūn* (as in n.4), entitled "Women," the parts entitled "Women" or "Jokes and Pleasantries" from Ibn ʿAbd Rabbih's *ʿIqd* (as in n.3), or the sections on obscenity and scatology in *Muḥāḍarāt al-udabaʾ* (as in n.24) by the eleventh century theologian al-Rāghib al-Iṣbahānī.

³⁴ See n.3.

regional particularism, and to make them feel that they belong to this Arabic and Islamic civilisation just as much as the Eastern Arabs.

In general this kind of anthological encyclopaedic text³⁵ is biased towards the so-called Arabic sciences or the humanities: it stresses literary style, language, ethics, piety and *urbanitas* in varying proportions. Mathematics, astronomy, chemistry and logic are largely ignored, but there is usually at least some admixture of the natural sciences such as zoology, medicine and cosmography. Conversely, encyclopaedias devoted to the natural sciences may incorporate elements of literary *adab*, a good example being the large alphabetically-arranged encyclopaedia on animals by al-Damiri (d. 1405), which moves over a wide range of biology, poetry, lexicography, history, legends and religion.³⁶ Among the more general encyclopaedias of the natural sciences is a work of cosmography entitled *The Wondrous Creations* (*ʿAjāʾib al-makhlūqāt*) by Zakariyyā al-Qazwīnī (d. 1283).³⁷ This is not a loose collection of facts and quotations but a systematic encyclopaedia on the cosmos, arranged according to the chain of being from the highest heavens to earth, with its mineral, vegetable and animals realms. Together with a companion encyclopaedia³⁸ by the same author on the geography of the whole known world it contains everything that an educated medieval Muslim may care to know about the world that surrounds him.³⁹ Its readability is enhanced, in the geographical part, by anecdotes and poems; in the cosmographic part, by its superficiality and not rarely by splendid illustrations; and in both parts, by the empha-

³⁵ On which see Hilary Kilpatrick, "A genre in classical Arabic literature: the *adab* encyclopedia," in: Robert Hillenbrand (ed.), *Proceedings [of the] 10th Congress, Union Européenne des Arabisants et Islamisants, Edinburgh, 9-16 September 1980* (Edinburgh 1982) 34-42.

³⁶ al-Damiri, *Ḥayāt al-ḥayawān al-kubrā*, various (uncritical) editions; incomplete translation by A.S.G. Jayakar (London & Bombay 1906-1908).

³⁷ Zakariyyā al-Qazwīnī, *ʿAjāʾib al-makhlūqāt*, ed. Ferdinand Wüstenfeld (Göttingen 1848-1849), German translation by H. Ethé (Leipzig 1868).

³⁸ *Āthār al-buldān*, ed. Ferdinand Wüstenfeld (Göttingen 1849).

³⁹ The masculine pronoun is appropriate in spite of the story of Tawaddud, since the number of non-fictional women with an encyclopaedic knowledge must have been negligible. There is, to my knowledge, no Arab equivalent of the German Abbess Herrad of Landsberg (d. 1195), author of the encyclopaedia entitled *Hortus deliciarum* (*The Garden of Delights*).

sis on *mirabilia*. It is a kind of synthesis of traditional Arabic and Islamic learning and the Hellenistic tradition of the philosophers, the latter always rather suspect among the pious. Al-Qazwīnī's attempt to effect a reconciliation between the two was reasonably successful, judging by the popularity of his encyclopaedia.

Popular too was a very interesting earlier encyclopaedia dating from somewhere in the tenth century. Much is still obscure about its origins; it was written, it seems, by a number of authors from Basra collectively known as *Ikhwān al-ṣafā'*, translated as "the Sincere Brethren" or "the Brethren of Purity." The encyclopaedia (some 1900 pages in a modern edition)⁴⁰ consists of some 52 treatises or "Epistles" on many fields of learning, beginning with mathematics and including astronomy, geography, music, logic, philosophy, botany, zoology, ethics, theology and magic. The authors are much interested in philosophical and psychological matters such as cause and effect, the intellect, the soul, love, etc. They are obsessed with numbers, which is why arithmetic and mathematics stand at the beginning; they are equally obsessed with the interrelationship of everything with everything else in the cosmos: man as a microcosm, the universe as a macranthrope. The style is relatively simple and much more accessible to a large public than the works of the philosophers. Its readability is enhanced by literary, belletristic elements such as anecdotes, poetry and allegorical tales, and by often addressing the reader passionately.

For this encyclopaedia is meant to be more than merely an impersonal compendium of the sciences: it is a manual, full of converting zeal, for a better life and happiness in this world and the Hereafter through moral and intellectual purification, to which end the reader is constantly and urgently addressed, a thing rarely found in other works of scholarship. It is permeated with esoteric ideas from many backgrounds, Neo-Platonic, Hermetic, or Pythagorean, with an admixture of ideas coming from India, Persia, or ancient

⁴⁰ *Rasā'il Ikhwān al-Ṣafā'*, 4 vols. (Beirut 1957). The secondary literature is extensive; see e.g. A. Bausani, *L'enciclopedia dei Fratelli della Purità. Riassunto, con Introduzione e breve commento, dei 52 Trattati o Epistole degli Ikhwān al-ṣafā'* (Napels 1978); Ian R. Netton, *Muslim Neoplatonists: An Introduction to the Thought of the Brethren of Purity (Ikhwān al-Ṣafā')* (London & Edinburgh 1991).

Mesopotamia. One may find, on a single page,⁴¹ the names of Hermes Trismegistus, Aristotle, Pythagoras, Christ and Mohammed. It has often been claimed that the authors belonged to the Shi'a, which was politically and culturally dominant in their time, and that their work was intended as propaganda for the theological and political claims of the activist Ismā'īliyya movement. Yet it is not easy to retrieve from the text any unambiguous ideas that would support the politico-religious doctrines of Shi'ite Islam. In the encyclopaedia as a whole Man is central, but from the lengthy and lively debate between Man and animals it is clear that many human virtues and powers are surpassed by those of animals. In the end Man's superiority to animals in the cosmic hierarchy is justified only because of the existence of a small number of superior persons, the wise and the holy. It would be possible to see here an allusion to the *imāms*, the descendants of Mohammed and 'Alī who are the rightful political and religious rulers in this world according to Shi'ite ideas. However, when the political dominance of the Shi'a declined, from the end of the eleventh century onwards, this did not mean that the *Epistles of the Sincere Brethren* were forgotten. It is true that once, in 1150, the encyclopaedia was publicly burned by orthodox authorities together with Avicenna's works, but it remained popular, because of its breadth of scope, its readability and the (perhaps superficial) beauty of its cosmology, resulting in a popular esotericism and eclectic comprehensiveness, in spite of the paradoxes implied in these oxymorons. Later authors used their ideas, simply omitting things that did not fit in well with Sunni orthodoxy. The remarkable tolerance shown by the Sincere Brethren in incorporating ideas from every source, Islamic or non-Islamic, is reflected in the tolerance that they preach, for they were no fanatical bigots. Doubts have even been expressed as to their being Muslims. When reading the *Epistles* I cannot escape the impression that, for all their often dotty ideas, the designation "Sincere Brethren" is an apt one, and that, although to them everything has multiple hidden meanings, their own work has no clearly defined politico-religious hidden agenda.

The *Epistles* together embrace more fields of learning than perhaps any other Arabic systematic encyclopaedia; yet they are not

⁴¹ *Rasā'il* (as in n.40) 1.138.

truly complete. Language and literature are underrepresented, even though both belong to the core of the so-called Arabic sciences. Another branch of learning, very popular with the Arabs, is lacking too: history. It is no coincidence that throughout the centuries several famous works that are usually classified as historiography are encyclopaedic in nature. The earliest examples date from the end of the ninth and the beginning of the tenth century. They deal with universal history, which means that they begin with the creation of the world, followed by a description of the cosmos and the earth, a survey of the peoples of the earth such as the Jews, Greeks, Romans, Persians, Indians, Chinese and the pre-Islamic Arabs. In the sections dealing with the period from the time of the Prophet Mohammed onwards the universal history turns into a history of Islam and the Arabs.⁴² The whole is usually eminently readable as *belles-lettres*. This combination of cosmogony, cosmography and history was not invented by the Arabs, for there are a few examples in Latin and Greek, but it became very popular with them.⁴³ On perhaps the most famous example, al-Mas'ūdi's *Golden Meadows* from the first half of the tenth century, H.A.R. Gibb wrote:

There is no more delightful work in Arabic. The inconsequent style of the author, as he ranges over natural history, history, geography, ethnology, religion, medicine, and what not, his breadth of view and innumerable anecdotes, keep the reader interested and amused ...⁴⁴

One may concur with Gibb in his enthusiasm for the *The Golden Meadows*, which is, *pace* Gibb, no encyclopaedia, for it studiously

⁴² The earliest example is al-Ya'qūbi's *History (Tārīkh)* ed. M. Th. Houtsma (Leiden 1883). The most famous example is *The Golden Meadows (Murāj al-dhahab)* by al-Mas'ūdi (d. 956), ed. & tr. Barbier de Meynard & Pavet de Courteille (Paris, 1861-1877); see also the partial translations by G. Rotter, *Bis zu den Grenzen der Erde: Auszüge aus dem "Buch der Goldwäschen"* (Tübingen 1978) and by Paul Lunde & Caroline Stone, *The Meadows of Gold. I: The Abbasids* (London 1989).

⁴³ On the genre, see Berndt Radtke, *Weltgeschichte und Weltbeschreibung im mitteralterlichen Islam* (Wiesbaden 1992). On some late medieval examples, see Régis Blachère, "Quelques réflexions sur les formes de l'encyclopédisme en Égypte et en Syrie du VIII^e/XIV^e siècle à la fin du IX^e/XV^e siècle," *Bulletin d'Études Orientales* 23 (1970) 7-19, repr. in R. Blachère, *Analecta* (Damascus 1975) 521-540.

⁴⁴ H.A.R. Gibb, *Arabic Literature: An Introduction*, 2nd (revised) ed. (Oxford 1963) 82.

avoids a systematic and straightforward presentation of easily retrievable facts. Some later large-scale works are more systematic, for instance al-Nuwayrī's *Nihāyat al-arab fī funūn al-adab* (*The Ultimate Ambition in the Branches of Erudition*) from the early fourteenth century. The author divided it into five parts, devoted to the Cosmos (including geography), Man (including ethics), Animals, Plants and History. The last part dominates the encyclopaedia, since of its 31 volumes 21 are taken up by history.⁴⁵

It is important, I believe, that this combination of encyclopaedic knowledge and history turned out to be more popular as a genre than other forms of encyclopaedism, such as the more or less systematic encyclopaedia without history of the Sincere Brethren. Knowledge of the world is a preliminary for historical knowledge. For the Sincere Brethren, who wrote for pious believers with leanings toward philosophy, the knowledge of history was obviously not relevant. Al-Mas'ūdī, al-Nuwayrī and similar writers did not write in order to convert people or to further a particular politico-religious ideology. Al-Mas'ūdī was a Shī'ite and a Mu'tazilite, which should have made him unpalatable to the Sunnite orthodox in later times, but the popularity of *The Golden Meadows* has hardly suffered on these counts. Al-Nuwayrī wrote, like other encyclopaedists, primarily for the *kuttāb*, the "secretaries" or higher civil servants, true to the precepts of 'Abd al-Ḥamīd Ibn Yaḥyā of six hundred years before his time, but his readership could and did include a much wider circle of scholars and intellectuals. Al-Nuwayrī was an Egyptian, loyal subject of the Mamluk sultan in Cairo, a personal friend of some high-ranking members of the ruling régime. His encyclopaedia is Egyptocentric, but only indirectly intended to legitimise or support Mamluk rule. On the other hand, it is probably no coincidence that the large encyclopaedias by al-Nuwayrī and another Egyptian, al-Qalqashandī (d. 1418),⁴⁶ or the encyclopaedic oeuvre of the polymath al-Suyūṭī (d. 1505) were all produced in a period in which Egypt under the Mamluks was still a leading nation in the Mediterranean and Middle Eastern world, whereas after

⁴⁵ Edition (Cairo) still in progress since 1923; vol. 31 (not the last one to be published) appeared in 1992. See M. Chapoutot-Remadi, "al-Nuwayrī," in: *The Encyclopaedia of Islam* (as in n.31) 8.155-160, with more references.

⁴⁶ See Maaïke van Berkel's contribution to the present volume.

1517, when Egypt, Syria and other Mamluk territories were incorporated in the Ottoman Empire and thus relegated to a minor, provincial status, no more important Arabic encyclopaedias were compiled in Egypt. It was not that the Ottomans were Turks, for the Mamluks were also non-Arab: Turks, Qipchaqs, Circassians, for instance. The difference was that Cairo was no longer the hub of an empire.

Any self-respecting people or nation needs its encyclopaedia. From the sixteenth century onwards the Arabs could only look back at the achievements of past ages. From 1876 on the great Lebanese scholar Buṭrus al-Bustānī and other members of his family produced something like an Arabic equivalent of the *Encyclopaedia Britannica*. This *Dā'irat al-ma'ārif* began to be republished in a new version from 1956 onward. It suffers from a surfeit of ambition: so far, some 14 large-format volumes have been published. To my knowledge the entry *aṭlas* ("atlas") was the latest to appear—which means that, after about 40 years, it has not yet completed the first of the twenty-eight letters of the Arabic alphabet. The title, *Dā'irat al-ma'ārif* "circle of objects of knowledge," is a rather literal rendering of the word "encyclopaedia" and symbolises the end of the pre-modern period of Arabic literature.

However, in a sense the pre-modern period lives on in the Middle East. There cannot be many bookshops in Europe that sell editions of the encyclopaedias by Isidore of Seville, Vincent of Beauvais, or Thomas of Cantimpré. But in numerous bookshops in Cairo or Beirut one may acquire the works of Ibn Qutayba, Ibn 'Abd Rabbih, al-Qazwīnī, al-Nuwayrī and others in inexpensive modern editions. They can still be read not only by specialists but by a much broader readership, thanks to the relative stability of the written Arabic language. Perhaps today their cultural and political use, as a consequence of the proliferation of printed copies, is greater than it ever was in the past. If read in the right way, they may still have much to offer to the present-day reader: entertainment, edification and perhaps a nostalgic feeling of pride in the Arab civilisation in its prime. No doubt they are also being read in the wrong way, by people with a decidedly pre-modern outlook religiously, politically and intellectually. But if there are bigots and ultra-puritans in the Muslim world, this is not the fault of the Arabic encyclopaedic texts.

THE *TAKTIKA* OF NIKEPHOROS OURANOS AND MILITARY ENCYCLOPAEDISM

FRANK TROMBLEY

The *Taktika* of Nikephoros Ouranos, a Byzantine general of wide culture and military experience, was the final product of the encyclopaedist movement in tenth-century Byzantium.¹ It seems to have been one of the few works in the tradition to have come from a provincial environment rather than Constantinople.² More importantly, its compilation was governed by principles of selection that were inherently practical, relating as it did to the peculiar situation of the Byzantine generals facing several Arab states on the Syrian land and sea frontier. Paul Lemerle has recognised Nikephoros' work as a typical product of the encyclopaedists' penchant for arranging extracts of classical writers into thematically unified categories.³ Yet this work has been studied more for what this work tells about late tenth-century modifications in Byzantine tactical doctrine than as the product of an intellectual movement.⁴

My aim in the discussion that follows will be to contextualise Ouranos' *Taktika* in both the intellectual life and strategic experience of the early medieval Byzantine state, which had by this time reached its zenith as a centre of culture and military expertise. We shall seek to put Nikephoros Ouranos in his historical context as a distant member of the encyclopaedist movement and a participant in the endemic wars on the Syrian frontier. Then we shall have a look at the *Taktika* as a document. There is no complete edition of this text.⁵ It will be shown that it was incubated in the unique environment of the trans-Tauros Syrian towns, and Antioch in particular, in the first decade of the eleventh century, being compiled with

¹ On Ouranos' career, see Eric McGeer, "Tradition and Reality in the *Taktika* of Nikephoros Ouranos," *Dumbarton Oaks Papers* 45 (1991) 129-40. His letters, poetry and hagiographic works are cited *ibid.* 130, n.5.

² *Ibid.* 131ff.

³ Paul Lemerle, *Le premier humanisme byzantin* (Paris 1971) 292.

⁴ See now the indispensable work of Eric McGeer, *Sowing the Dragon's Teeth: Byzantine Warfare in the Tenth Century* (Washington, D.C. 1995).

⁵ The problem is fully treated by McGeer, *Sowing* (as in n.4) and Alphonse Dain, *La "Tactique" de Nicephore Ouranos* (Paris 1937).

reference to social conditions prevailing there and in the military elite.

The tenth century is rightly understood as the era *par excellence* of excerpting and compiling anthologies of classical Greek writers. It was Paul Lemerle who transformed our view of this phenomenon into one of encyclopaedism.⁶ Byzantine encyclopaedism meant in essence the selection of texts dealing with particular themes, their excerpting, and arrangement into compendious volumes. With the exception of the *Souda* dictionary, this did not entail an alphabetical scheme of presentation. More significantly, the aim of most encyclopaedias was what we would call the applied or experiential sciences. Before looking at individual works, it is best to consider the definition of the problem given by emperor Constantine VII Porphyrogenitus, the *primum mobile* of the movement. In one of his encyclopaedias, *On Virtues and Vices*, after noting the almost unlimited number of books and in particular the "complexity of history," he observes: "So, with the immense number of these writings which fatigue the reader just by his thinking about them and which seem to be weighty and tedious, I thought it would be convenient to divide and subdivide them to put what useful material they contain at the disposal of all. In practising selection (*ἐκλογή*), one excites a more sustained attention in those learning literature, and one impresses them more forcefully with the noble and effective justice of these writings."⁷ He then goes on to describe his scheme of dividing and subdividing the materials of this work, which was moralistic in character. It is difficult not to suppose that the average general or civil official of the mid-tenth century could read Rhomaic, the Greek language of administration replete with Latinisms and other foreign words, with little difficulty.⁸ This was the language of the law codes, military manuals, reports of diplomats, inscriptions, pre-Metaphrasteian hagiography, and the like. It was a different matter with classical authors, especially those who wrote under the influence of the Second Sophistic. Digesting their contents could be time-consuming, irritating, and ultimately discouraging. Encyclo-

⁶ Lemerle, *Humanisme byzantin* (as in n.3) 267-300.

⁷ *Ibid.* 281f.

⁸ John B. Bury, *A History of the Later Roman Empire from Arcadius to Irene (395 A.D. to 800 A.D.)* (London 1889) 2.167-174.

paedism was thus in some respects a "low brow" movement designed to make the classical and Late Antique thought-world accessible to officials with a relatively modest training in rhetoric.

A survey of the encyclopaedic works of the tenth century reveals such a tendency. It will be necessary to look at them very briefly before considering the *Taktika* of Nikephoros Ouranos. Of these works, the best known, and those most often used by the historian, are the *De administrando imperio* (DAI) and *De caeremoniis*.⁹ Both are handbooks made up of documents designed to be informative to ministers of state. The *DAI* contains materials derived from the ethnographic reports of Byzantine ambassadors to the steppe peoples, for example. Advice is occasionally given, as for example about the formulas for refusing barbarian monarchs access to the so-called Greek fire and to marriages with members of the imperial family, but for the most part the organisation is loose and the material is descriptive rather than prescriptive.¹⁰ There is also material about the internal administration of the empire, as for example the revenues and ethnography of the Peloponnese and the reorganisation of the themes of eastern Anatolia.¹¹ The work is encyclopaedic to the extent that it contains useful information classified according to a rough geographical scheme with a table of contents. Moreover, the language of the documents was left in Rhomaic or administrative Greek, without Attic affectation. It was thus a book which a well-informed general or civil official could pick up and read with little difficulty. The *DAI* was in this respect a suitable companion to the military treatises in terms of language, purpose, and accessibility.

The actual practice of diplomacy was covered in similar fashion by another work, the *Excerpta de legationibus*.¹² Here there is no analysis, but merely a series of extracts from different historians who give detailed accounts of embassies between the Romans and barbarians. The latest extracts derive from late sixth- and seventh-

⁹ Editions: Constantine Porphyrogenitus, *De administrando imperio*, G. Moravcsik and R. Jenkins (eds.) (Washington, D.C. 1967); *De caeremoniis*, A. Vogt (ed.) 4 vols. (Paris 1935-40).

¹⁰ *DAI* 13.12-194.

¹¹ *DAI* 50.

¹² Lemerle, *Humanisme byzantin* (as in n.3) 280-88, *passim*.

century writers like Menander Protector, Peter the Patrician, Theophylact Simocatta, and John of Antioch, and even George the Monk's ninth-century chronicle.¹³ Here both excerpting and summarising were done. For example, in the case of some fragments of Menander Protector, whole chapters on military operations not relevant to the actual comings and goings of embassies are disposed of by protracted catenas of genitive absolutes, but elsewhere one finds the occasional reference to a written source, like the archive of public speeches in which the ambassadors' reports were deposited.¹⁴ Yet nowhere is there an analytical *précis* on how best to make use of historical examples during one's own mission to a foreign power. This was presumably left to the sagacity of the individual envoy. Fortunately, for the tenth century, we have a number of Arabic accounts of missions from Baghdad to Constantinople.¹⁵ These suggest that methods were improvised as the situation dictated.

It should be clear that the encyclopaedism discussed by Paul Lemerle had its limitations: it was seldom updated in light of tenth-century practice. This rule applies not only to diplomatic documents, but to those dealing with other aspects of political and social life as well. Other works thought to have been supervised by Constantine Porphyrogenitus include the *Book of Ceremonies*, *On the Themes* (a work of mostly antiquarian geographical interest), and in all probability two very popular works, to judge from the rich manuscript tradition: the *Geoponika* (excerpts pertaining to all areas of agriculture) and the *Souda*, an alphabetically-arranged encyclopaedic dictionary in the modern sense.¹⁶ Lemerle has suggested, with due caution, that the *Menologion* or collection of hagiographic lives selected, edited and translated by Symeon Metaphrastes into a more Attic style may have been an encyclopaedia of religious behaviour and motivation.¹⁷ One hesitates to say the same of *Theo-*

¹³ *Ibid.* 285f.

¹⁴ Menander Protector, *Fragmenta*, in: *Historici Graeci Minores* 2, L. Dindorf (ed.), (Leipzig 1871) Fr. 57 (111, ll.22-25); Fr. 64 (125, ll.3-7), etc. Extended nominative absolute: Fr. 47 (92, ll.27-32). Archive: Fr. 39 (77, l.20f.).

¹⁵ E.g. H.F. Amedroz, "An Embassy from Baghdad to the Emperor Basil II," *Journal of the Royal Asiatic Society* (1914) 917-942.

¹⁶ Lemerle, *Humanisme byzantin* (as in n.3) 288-92, 297-99.

¹⁷ *Ibid.* 293f.

phanes Continuatus, which contains lives of the emperors running from Leo V to Romanos II (813-963), but its practical assumptions derive from the same school of thought: clear criteria for discerning the success of imperial figures can be followed by observing the traditional formula, practised by Plutarch, of schematising the lives of great men.¹⁸

The missing element in the corpus of Constantinian encyclopaedias was the *military*. In a sense, the subject may have been considered too important to be left to archivists and compilers, for most of the early medieval Byzantine tactical treatises are the products of men capable of synthesising theory and practice. Furthermore, they are prescriptive rather than descriptive.¹⁹ The tradition of writing instructions for the military commander was a long one, dating back to a series of works assembled by the Peloponnesian general Aeneas, who wrote in the 360s B.C. Of them only *On the Defense of Fortified Positions* survives.²⁰ Used by Nikephoros Ouranos in some form, this work reflects the skills of an original thinker who could synthesise his own military experience with orally transmitted historical data, which became a normative feature of this literature thereafter. The subsequent history of works of this genre down to the tenth century has been treated by Alphonse Dain in some detail.²¹ It is sufficient to observe here that the Byzantine military manuals from the late sixth- to early seventh-century *Strategikon* of Maurice down to the *Taktika* of emperor Leo VI and treatises authored by Nikephoros II Phokas (963-69) such as *On Skirmishing* and the so-called *Praecepta militaria* (variously edited in recent years by Gilbert Dagron, George Dennis and Eric McGeer) were empirical works that had little to do with encyclopaedism or the classical tradition in warfare.²² The updating of tactical doctrine in the tenth century went hand in hand with improvements in weapons

¹⁸ Romilly Jenkins, "The Classical Background of the *Scriptores Post Theophanem*," *Dumbarton Oaks Papers* 8 (1954) 11-30.

¹⁹ This fundamental point has in my view been overlooked.

²⁰ Cf. *Aeneas Tacticus, Asclepiodotus, Onasander*, W.A. Oldfather (ed.) (Cambridge, Mass. and London 1928) 1-225.

²¹ A. Dain, "Les stratégistes byzantins," *Travaux et mémoires* 2 (1967) 317-92.

²² *Three Byzantine Military Treatises*, G. Dennis (ed.) (Washington, D.C. 1985). *Le traité sur la guérilla (De velitatione) de l'empereur Nicéphore Phocas (963-969)*, G. Dagron and H. Mihaescu (eds.) (Paris 1986). Cf. *supra* n.4.

technology, the tactical deployment of bodies of infantry and cavalry, and their articulation in battle.²³ This handling of such works was an entirely novel event in European culture, not to be imitated again until the time of Frederick the Great of Prussia, who periodically updated his tactical doctrine with new treatises.²⁴ The Byzantine themes of the tenth century may have been in this respect the first modern European army, a fact not widely appreciated by scholars.²⁵

The functional role that military manuals played is noted in the *Book of Ceremonies*, which lists the books an emperor should take in his personal baggage on campaign: "The official diary; works on the art of war, especially those on the construction of siege towers and artillery, as also those on the conduct of war, especially those of Polyainos and Syrianos; a manual for the interpretation of dreams and another on omens; a treatise on chance events and one on maritime meteorology; finally, a βροντολόγιον and σεισμολόγιον, books for the interpretation of thunder and seismic movements."²⁶ The list reflects the phenomenon of the encyclopaedist going to war. It suggests that the works of Polyainos and Syrianos still had a wide currency: more will be said of them later. Rather disturbing is the omission of the *Taktika* of Constantine's father, Leo VI, which was a practical guide to most aspects of ninth-century warfare on land, but perhaps too prosaic for the aesthete in the son's make-up. The late classical works of Syrianos and Polyainos mentioned were products of a sixth-century interest in ancient warfare. Polyainos was a writer of the time of Marcus Aurelius (161-180) who compiled accounts of the ruses of Greek and Roman generals, but arranged them not according to similarity of method, but by the name of the general or people that practised them.²⁷ This proved unsatisfactory for practical application, so a summary was produced, probably in the sixth century, called the *Principles of Strategic*

²³ E. McGeer, *Sowing* (as in n.4) 80f.; "Tradition and Reality" (as in n.1) 132f.

²⁴ R.R. Palmer, "Frederick the Great, Guibert, Buelow: From Dynastic to National War," *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, P. Paret (ed.) (Princeton 1986) 96-105.

²⁵ One looks in vain for this in works like *Makers of Modern Strategy* (as in n.24).

²⁶ Cited by Lemerle, *Humanisme byzantin* (as in n.3) 270f.

²⁷ Polyaeus, *Strategemata*, ed. E. Woelfelin and L. Melber (Leipzig 1887).

Practice or Hypotheses.²⁸ Polyainos' cumbersome scheme was rearranged into 58 discreet categories such as: 1: What kind of person the general must be; 10: Concerning an entrenched camp; 15: The illusion of superior numbers; 48: On river crossings, and so forth. It is most probable that Constantine Porphyrogenitus was referring to this compendious edition of Polyainos and not the original work. As to the second author, Syrianos Magister, he produced a compendium of material on naval warfare entitled *Ναυμαχίαι* or *Naval Battles* in the sixth century. Perhaps significantly, the latter work was ignored in the tenth-century military literature composed at the instigation of Leo VI and Nikephoros Phokas, whose writings emphasised mainly tactics used on the eastern frontier against the Arab armies of the Hamdanids and Fatimids. It was only in the early eleventh century that Nikephoros Ouranos dusted off these late classical works, rephrased them into the common idiom, and included them in his *Taktika*.

Who then was Nikephoros Ouranos? A recent article by Eric McGeer has clarified many issues about his military and political career and provides the *editio princeps* of two lead seals bearing his inscription.²⁹ The same scholar has of late produced an edition and translation of Chapters 56-65 of the *Taktika*. These chapters were a careful updating of materials found in Nikephoros II Phokas' *Praecepta militaria* and *mutatis mutandis* are less important to the theme of encyclopaedism than the other, more derivative sections of Ouranos' work, which has a total of 178 chapters. It will be necessary to describe his career and the historical context of the *Taktika* before going into its contents.

Nikephoros Ouranos' career as a soldier is known from the Arabic and Byzantine sources to have spanned the three decades between 979-1011 A.D. His sphere of activity was mostly the eastern frontier south-east of the Tauros mountains in Syria and Mesopotamia, where Byzantine power had increased dramatically in the tenth century. The principal Arab base for the *jihad* against Byzantium, Tarsos, and Antioch, a nodal point of trade and the key to the Orontes basin, were captured in the reign of Nikephoros Phokas. His successor, John Tzimiskes, pushed Byzantine control into

²⁸ *Ibid.* 427-504.

²⁹ McGeer, "Tradition and Reality" (as in n.1) 139f.

Lebanon. By this time Aleppo, the base of the Hamdanid dynasty of Sayf ad-Dawla, was reduced to satellite status, theoretically paying an annual tribute of some 400,000 *dinars*.³⁰ The reign of Basil II Boulgaroktonos (976-1025), roughly inclusive of Ouranos' career, proved to be one of consolidation in northern Syria as the empire fended off the great Bulgar rebellion in Europe.

Nikephoros Ouranos first turns up on a diplomatic mission to the caliphal court at Baghdad in 979. The aim of his mission was to secure the extradition of the rebel magnate Bardas Skleros. Ouranos was himself imprisoned there and escaped with the aid of a Bedouin.³¹ It seems from this and the use of any number of technical terms in his *Taktika* that Ouranos could speak Arabic,³² as does his handling of the negotiations at Constantinople between Basil II and the Buyid envoy Ibn Sharam from Baghdad in 982.³³ By 996/7 he had reached the rank of Domestic of the Schools West, the commander of the elite regiments at Constantinople destined for use in the Balkans. In that year he led these troops to victory over the Bulgar Khan Samuel at the Spercheios river in the plain of Lamia/Zetounion.³⁴ In 999 he went east again, first as the Domestic of the Schools East, then as governor of Antioch. The sources refer to him variously as ὁ κρατῶν τῆς Ἀνατολῆς and *magistros*.³⁵ He is regularly mentioned in the sources between 999-1007 and may well have continued to govern until 1011, when a new *magistros* is mentioned by the Christian Arab chronicler Yahya of Antioch.³⁶ Assuming that Ouranos governed northern Syria continuously between 999-1011, he was involved mainly in consolidating the Byzantine position. He was involved in a major operation in 1005-7,

³⁰ Yahya of Antioch, *Ta'rikh* in *Histoire de Yahya-ibn-Sa'id d'Antioche, continué de Sa'id-ibn-Bitriq*, I. Kratchovsky and A. Vasiliev (eds.), *Patrologia Orientalis* 18 (1924) 699-834; 23 (1932) 348-520. All citations are taken from the latter volume, which is cited as Yahya, *Ta'rikh* 2.

³¹ Yahya, *Ta'rikh* (as in n.30) 2.420f.

³² McGeer, *Sowing* (as in n.4) 166.

³³ *Supra* n.15.

³⁴ McGeer, "Tradition and Reality" (as in n.1) 130f. John Skylitzes, *Synopsis Historiarum*, ed. I. Thurn (Berlin 1973) 364f.

³⁵ McGeer, "Tradition and Reality" (as in n.1) 130f. Yahya, *Ta'rikh* (as in n.30) 2.467.

³⁶ Yahya, *Ta'rikh* (as in n.30) 2.501.

the pursuit of the fighting band of al-Asfar, a Bedouin *fakir* who raided Byzantine territory until Ouranos drove him deep into Mesopotamia and eliminated the threat.³⁷

McGeer and Dain agree that Nikephoros Ouranos assembled the *Taktika* during the period of his governorship at Antioch between c.999-1011.³⁸ There is no particular reason to contest this, as it was a period of relative calm, with the Hamdanids of Aleppo in decline and a peace treaty with the Fatimid caliph of Egypt al-Hakim in force from 999.³⁹ Warfare had certain salient features in northern Syria that did not escape the magister's notice, and these seem to have affected his selection of materials. Yahya of Antioch gives the most coherent picture of war and society between 970-1013. Let us consider some aspects of this. Routes through passes were controlled by fortified towns and outposts often located on high peaks: the usual ruses and stratagems were often the sole means of taking these positions, as in the ancient world.⁴⁰ As G. Dagron has shown, the towns under Byzantine administration had mixed populations of Christian Greeks, Syrians and Armenians, but also Muslim Arabs who might aid the attacker.⁴¹ For example, in 992 the Muslim population of Laodikea, the seaport of Antioch, rebelled and the Byzantine governor Michael Bourtzes had to march on the town and deport the Muslims to Anatolia.⁴² When Banjutakin, the Turkish *wazir* of Damascus, was besieging Apamea on the Orontes in 993/4, Bourtzes organised a special force to attack his foragers.⁴³ On 15 September 994 Bourtzes suffered a defeat in the Battle of the Ford on the Orontes near Apamea thanks, it seems, to an error in his dispositions. Outnumbered, he faced the enemy across two fords. When the pro-Byzantine Hamdanid allies

³⁷ A.J. Cappel, "The Byzantine Response to the 'Arab (10th-11th Centuries)," *Byzantinische Forschungen* 20 (1994) 119f.

³⁸ Dain, *Tactique* (as in n.5) 136. McGeer, "Tradition and Reality" (as in n.1) 131ff.

³⁹ Yahya, *Ta'rikh* (as in n.30) 2.460f.

⁴⁰ Ruses against fortresses: Yahya, *Ta'rikh* (as in n.30) 2.402f., 405f.

⁴¹ Gilbert Dagron, "Minorités ethniques et religieuses dans l'Orient byzantin à la fin du Xe et au XIe siècles: l'immigration syrienne," *Travaux et mémoires* 6 (1976) 177-216.

⁴² Yahya, *Ta'rikh* (as in n.30) 2.439.

⁴³ *Ibid.* 440.

insisted on fighting, Banjutakin sent his own Arabs to attack them at one ford while quietly facing the Byzantine cavalry at the other with his Turks and mercenaries. When Banjutakin's Arabs forced a crossing and rode round the rear of the Byzantine troops, the latter panicked and lost some 5000 men in the subsequent rout.⁴⁴ It was a textbook defeat that might have been avoided, and so Bourtzes was cashiered. Subsequent operations under the new Byzantine governor, Damian Dalassenos, were directed against the semi-independent *amir* of Tripoli, Nazzal, who came to terms with him, but was then overthrown by the populace whom the *qadi* had instigated.⁴⁵ Dalassenos, who possessed the "governorship of the East" (ὁ κρατῶν τῆς Ἀνατολῆς), occupied nearby Tortosa, a deserted town, refortified it, and raided the environs of Tripoli. The Fatimids supported the Tripolitans with naval forces and, in consequence, the Byzantines were forced to carry out combined operations on land and sea. This was a new dimension to the war in Syria and, as will be seen, it affected Nikephoros Ouranos' principles of selection in compiling his *Taktika*. The problem was compounded by the fact that the Fatimid caliph al-Hakim had an energetic Christian minister named Isa b. Nesthouros, who equipped a number of naval squadrons in 996.⁴⁶ Ouranos became Domestic of the Schools East in the same year and must have followed all this closely. He received the governorship of the East a little later thanks to a tactical mishap: Damian Dalassenos had marched to Apamea in June or July 998 to cover the city after a catastrophic fire. He was killed while pursuing Bedouin who were raiding the baggage of the opposing Arab army—something that no sensible field commander would have risked.⁴⁷ Ouranos, the new *doux* of Antioch, surely appreciated that tactical principles were not being soundly applied. During his administration between 999-c.1011, he most probably concentrated on training the "provincial troops" under his command (*ʿasākir al-atrāf*)⁴⁸ as prescribed by the *Praecepta militaria* of Nikephoros

⁴⁴ *Ibid.* 440f.

⁴⁵ *Ibid.* 443.

⁴⁶ *Ibid.* 447-49.

⁴⁷ *Ibid.* 455f. Basil II most probably spent the winter of 998-9 training troops near Mopsuestia. *Ibid.* 460.

⁴⁸ *Ibid.* 466f.

Phokas and as Basil II probably did when he wintered in northern Syria in 999-1000 A.D.⁴⁹ The middle chapters of Ouranos' *Taktika* reveal some modification and improvement to the systems recommended in the latter work, but, as noted previously, this accounts only for Chapters 56-65.⁵⁰ What of the remainder of this work?

At the end of Chapter 65 begins the main compilatory section of Nikephoros Ouranos' *Taktika*. Here he observes in connection with siege warfare: "Many and varied are the means used by the men of old contrived for conducting siege warfare, but I have set down only the methods that our generation currently employs. The more extraordinary devices of the ancients I have passed over, and let those eager to learn them study the *Taktika* and find out all about them."⁵¹ The final section of Ouranos' work, Chapters 66-178, deals with this desideratum, and was added later by Ouranos as a logical consequence of this statement. The process was not, however, haphazard. Long sections are taken from the sixth-century compendium of Polyainos' *Hypotheses*, which are reproduced roughly in their proper order. Alphonse Dain has shown, however, that Ouranos rewrote everything that came into his hands, and these sections, along with the others, are put into more contemporary language that scrupulously avoids Atticism.⁵² Dain has offered proofs to the effect that Polyainos' *Hypotheses* came to Ouranos as part of a lost corpus of tactical writings, the so-called *Corpus perditum* but, as Polyainos' work was in circulation at the court of Constantine Porphyrogenitus, it cannot have been a difficult text to find.⁵³ That Ouranos knew the ultimate provenance of many of the texts he rewrote in the last 113 chapters of the *Taktika* is evident from the title given to his work in *Codex Constantinopolitanus Gr.* 36 (Serail): "The *Taktika* or *Strategika* of Arrian, Aelian, Pelops, Polyainos, Onasander, Alkibiades, Artaxerxes (=Xenophon?), Syrianos, Annibas, Plutarch, Alexander, Diodoros, Polybios, Herakleitos, Maurice, Nikephoros [Phokas], and certain others, collected by

⁴⁹ *Ibid.* 460.

⁵⁰ McGeer, *opp. cit.* (as in nn.1 and 4).

⁵¹ McGeer, "Tradition and Reality" (as in n.1) 138; *Byzantine Warfare* (as in n.4) 160ff.=Nik. Our., *Taktika* 65.22.

⁵² Dain, *Tactique* (as in n.5) 42f., 48, 57, 59, 62f., 68-70, 78f., 82f., 88, etc.

⁵³ *Ibid.* 21-29.

Nikephoros *magistros* Ouranos from many historical [texts], as was said, with much care (ἐν ἐπιμελείᾳ πολλῇ)."⁵⁴ It is quite possible, then, that the so-called *Corpus perditum* provided information about provenances, or even that Nikephoros Ouranos (*pace* Dain) did his own compilation from diverse manuscripts at his own disposal. Of this material, the *Hypotheses* of Polyainos provide the largest part, making up Chapters 124-171.

Extracts from other tacticians have been assigned places amidst this material. For example, Chapters 72-74 go back to the first-century A.D. work of Onasander, *The General*, on keeping reserves in readiness for the later, decisive stage of the battle, and on announcing favourable news during the battle by riding along the line shouting to the soldiery.⁵⁵ Dain argues that Nikephoros Ouranos wrote this up directly from the *Praecepta militaria* of Nikephoros Phokas, but the appearance of Onasander's name in the title of the aforementioned manuscript might suggest direct knowledge of Phokas' source as well.⁵⁶ Onasander's work was by far the most systematic pre-modern treatment of the psychology of the interaction between generals, their subordinates, and ordinary fighting men. Its prescriptions were less obvious than it might seem from the modern perspective.

Nikephoros Ouranos inserted a section on naval warfare (chapters 119-123) that ultimately goes back to Syrianos Magister. It deals with these matters: "119. On sea battles. 120. Battle line for entering a harbour. 121. Another battle line for the same. 122. How to sail on rivers. 123. Stratagems of ancient men performed on the sea."⁵⁷ The last of these, Chapter 123 on "ancient men," derives not from Syrianos, but Polyainos' *Hypotheses*. Its subtitles indicate the latter's preoccupation with the exploits of the Athenian admiral Konon, Antigonos I, and several others. The concept of naval warfare prescribed in these sections is based on the sixth-century consensus of what was important. None of these chapters has been edited, so it is difficult to see how Ouranos updated the tradition

⁵⁴ *Ibid.* 13.

⁵⁵ *Ibid.* 21.

⁵⁶ The precision of the manuscript has not been closely studied. *Ibid.* 93-95. McGeer, *Sowing* (as in n.4) 81f.

⁵⁷ Dain, *Tactique* (as in n.5) 23f.

terminologically. The tactical manuals of Leo VI and Nikephoros Phokas deal almost exclusively with land warfare. Ouranos probably incorporated this material in view of the requirement for naval operations along the coast of Syria and Lebanon around Tripoli, Tortosa and Laodikea. For example, Tyre rebelled against the Fatimids in 996 and asked for protection from Basil II. A fleet was sent to its aid, but a Fatimid squadron subsequently came up and retook the city.⁵⁸ There had been a few innovations in naval warfare since antiquity like the invention of "marine fire" (θαλάσσιον πῦρ) in the seventh century.⁵⁹ As the naval sections of Ouranos' work are still mostly unedited, it is difficult to say if he deals implicitly with more recent problems.⁶⁰

Chapters 172-4 derive ultimately from Aeneas Tacticus' *On the Defense of Fortified Positions* 37 and 39, dealing with defeating mining operations against the foundations of walls and constructing a trench near the city gate to trap the enemy when one's own men retire through it after a sortie.⁶¹ These have an obvious relevance to the ruses used in siege warfare on the Syrian frontier.

From these and other texts appearing in Nikephoros Ouranos' *Taktika*, it seems that the general was anxious to include every possible contingency and device in the list of stratagems. The reasons for including this material are nowhere formally stated. It is nevertheless possible to draw some inferences. There can be little doubt that the author was responsible for training troops along the lines suggested in Nikephoros Phokas' *Praecepta militaria* and that he rewrote them as the middle chapters of the *Taktika* for this reason.⁶² The classical extracts are of a different character, being insufficiently detailed for use as training material for ordinary soldiers. They seem intended instead for senior officers as subject matter for discussion. In reading the Arabic chronicle of Yahya of Antioch one can see the connections between late tenth-century incompetence at command levels and the need for thinking about holding defiles,

⁵⁸ Yahya, *Ta'rikh* (as in n.30) 2.449.

⁵⁹ Cf. J.F. Haldon, "A Possible Solution to the Problem of Greek Fire," *Byzantinische Zeitschrift* 70 (1977), 91-99.

⁶⁰ Dain, *Tactique* (as in n.5) 65-70 with two sample editions.

⁶¹ For a sample edition of Chapter 172, see *ibid.* 82f.

⁶² McGeer, "Tradition and Reality" (as in n.1) 132f.

conducting pursuits with proper attention to security, keeping down subject populations, and land-sea co-operation. It strikes us that Nikephoros Ouranos prepared this material to clarify his own experience as Domestic of the Schools East and West during the relatively peaceful years he spent as *doux* of Antioch between 999-c.1011. The use of classical exemplars will have strengthened his position in discussions with his subordinates, a phenomenon analogous to Niccolo Machiavelli's use of Latin humanist style and argumentation in his *Art of War* and political writings.⁶³ For all their experience and bravery, Ouranos' predecessors Michael Bourtzes and Damian Dalassenos had been cashiered and killed respectively because of incompetence. The number of manuscripts containing sections of the *Taktika* suggests some dissemination, but it is difficult to say if it ever achieved more than semi-official status.⁶⁴ While it is certain that Basil II was much preoccupied with military affairs, we are less able to say whether the excerpting and rewriting of the earlier military traditions was of interest to him.⁶⁵ This said, the *Taktika* of Nikephoros Ouranos is the most thoroughly researched example of a Byzantine military encyclopaedia to have survived.

⁶³ Felix Gilbert, "Machiavelli: The Renaissance of the Art of War," *Makers of Modern Strategy* (as in n.24) 11-31.

⁶⁴ McGeer, *Sowing* (as in n.4) 81-86. Dain, *Tactique* (as in n.5) 93-123.

⁶⁵ Cf. Michael Psellus, *Chronographia* 1.33 in *Fourteen Byzantine Rulers*, tr. E.A. Sewter (London 1953) 46f.

COMMUNAL IDENTITY AND THE SYSTEMATISATION OF KNOWLEDGE IN THE SYRIAC "CAUSE OF ALL CAUSES"

G.J. REININK

One of the major medieval encyclopaedic texts of Syriac tradition occupies a rather exceptional place in Anton Baumstark's *Geschichte der syrischen Literatur*: "An 'alle Nationen' d.h. Bekenntnisse sich wendend, handelt es über Gott, die sinnliche und die Geisterwelt und über den Menschen mit dem sichtlichen Bestreben, eine Verständigung nicht nur zwischen den verschiedenen christlichen Religionsparteien, sondern auch zwischen Christentum, Islam und Judentum anzubahnen." Defining its objectives in this way, Baumstark compares this work with Lessing's drama *Nathan der Weise*, a typical representative of the "Enlightenment" in eighteenth century Germany.¹

The encyclopaedic text at issue was published in 1889 by Karl Kayser.² It bears the following title in the Berlin manuscript used by Kayser as *manuscrit de base* for his edition: "The book of the Cause of all causes, the Creator of all creatures, the Maker of all visible and invisible things, a universal book (destined) for all peoples under the heavens, which teaches how the knowledge of the Truth can be acquired."³ The *Cause of all Causes* (henceforth the CC) was composed by an anonymous Jacobite bishop of Edessa, according to Baumstark most probably in the tenth century,⁴ though

¹ A. Baumstark, *Geschichte der syrischen Literatur* (Bonn 1922) 280–281. Religious tolerance or the pursuit of religious unification is also considered as the work's main objective by the other handbooks of Syriac literature; cf. N. McLean's addition in: W. Wright, *A Short History of Syriac Literature* (London 1894) 242–243; R. Duval, *La littérature syriaque* (Paris 1907) 243–244; J.-B. Chabot, *Littérature syriaque* (Paris 1934) 87–88.

² C. Kayser (ed.), *Das Buch von der Erkenntniss der Wahrheit oder der Ursache aller Ursachen* (Leipzig 1889). Kayser used for his edition four manuscripts in European libraries (Berlin, Rome, Paris, Oxford). Kayser's German translation was posthumously published under the same title by C. Siegfried (Strassburg 1893). In this article the abbreviation CC is used for Kayser's edition (quoted according to its pages and lines) and translation (quoted according to its pages).

³ CC, Introduction; 2, ll.2–4/1.

⁴ A. Pohlmann, "Ueber die syrische Schrift: Liber generalis ad omnes gentes in einer Hdschr. der Bibliothek der Propaganda zu Rom," *Zeitschrift der Deutschen*

most scholars assigned the work to the eleventh or twelfth century.⁵ The *CC* is divided into nine Discourses, which are subdivided into chapters, ranging from five to ten chapters in a treatise. It is perhaps due to its size that the last part of the *CC* appears to be lost.⁶ The manuscripts that are known and accessible today present the text up to the end of the second chapter of the seventh Discourse, in which the stones and metals of Creation are described; but thanks to the detailed table of contents in the introduction, we have some information about the topics that were treated in the final part of the *CC*.⁷

Since Kayser's edition, the *CC* has not received the attention

Morgenländischen Gesellschaft 14 (1861) 659, suggested that the famous Jacobite scholar Jacob of Edessa (died 708) may have been the author of the *CC*. B.H. Cowper, "Philosophical Questions in the Ancient Syrian Church," *The Journal of Sacred Literature*, Fourth Series, 1 (1862) 161, accepted Pohlmann's view. Kayser (ed.), *Das Buch* (as in n.2) II, rejected Pohlmann's identification, arguing that the *CC* cannot have been composed before the tenth century and that it may even be of a still later date. Baumstark's argument for the tenth century, on the contrary, is not decisive. It is only based upon the presumption that the *CC* reflects a liberal attitude and that this mentality can be understood better in the tenth century than in later times (*Geschichte* [as in n.1] 280, n.7).

⁵ Th. Nöldeke, in his review of Kayser's edition in: *Literarisches Centralblatt für Deutschland* 30 (1889) 1001–1004, proposed a date in the eleventh or twelfth century because of the influence of certain Arabic words, names and expressions and in particular because of the author's geographical knowledge of European countries. The handbooks of McLean-Wright, Duval and Chabot (see above, n.1) adopt Nöldeke's date. However, we may perhaps exclude the twelfth century. The author reports that he composed the work after having been bishop of Edessa about thirty years (*CC*, Introduction; 8, l.6/10). No bishop of Edessa during the twelfth century seems to have been in office such a long time. A possible candidate of the eleventh century may be Athanasius, who was already bishop in 1042 and died in 1100. He is known as an author by his baptismal name Barsauma bar Ishai and he was highly esteemed for his oratorical powers; cf. I.-B. Chabot (ed.), A. Abouna (tr.), *Anonymi auctoris Chronicon ad annum Christi 1234 pertinens*, CSCO 82, 354 (Louvain 1916, 1974), 295, l.3–296, l.17/221, l.14–222, l.16; J.B. Segal, *Edessa, 'The Blessed City'* (Oxford 1970) 240.

⁶ More probable than the possibility that the work remained unfinished is the assumption that it was once transmitted in two volumes and that the second volume has disappeared, or that some scribe, in an early stage of the transmission of the text, did not complete his copying-work.

⁷ See *CC*, Introduction; 2, l.4–4, l.19/1–5, for the table of contents (on 4, ll.4–19/4–5, the contents of Discourses VII:3–5; VIII:1–5; IX:1–7).

that it deserves;⁸ for it is a highly interesting and important document not only for the study of encyclopaedic knowledge (in the fullest sense of the word) that circulated in the contemporary scholarly milieu of Jacobite communities in North Mesopotamia, but also for the study of the relations between medieval Syriac, Greek-Byzantine and Arabic scholarship.⁹ My present paper, however, will not enter into that question, but rather will be focussed on the following two interrelated questions. Firstly: For what purpose was the *CC* composed? Is encyclopaedic knowledge here really at the service of “universal religion,” propagated by the enlightened spirit of an Edessene bishop pursuing religious tolerance between the different religious communities in the Near East by appealing to the rational faculties of the human mind? Secondly: Does there exist a connection between the objectives of the *CC* and the way in which encyclopaedic knowledge is organised and systematised in this work, as a consequence of which the composition received its very particular generic characteristics?

1. THE PURPOSE OF THE COMPOSITION

In the introduction the author explicitly defines the main purpose of his work: it intends to teach the perfect knowledge of the Truth;¹⁰

⁸ There is no systematic study of the literary character and the sources of the *CC*. There is a short paragraph on the *CC*'s chemistry in E.O. von Lippmann's *Entstehung und Ausbreitung der Alchemie* (Berlin 1919) 394–395. More important and too much neglected are Gerhard Klinge's remarks on the *CC* in his article “Die Bedeutung der syrischen Theologen als Vermittler der griechischen Philosophie an den Islam,” *Zeitschrift für Kirchengeschichte*, 3.Folge IX, LVIII.Bd. (1939) 382–386. Klinge focussed attention on the Neoplatonic character of the *CC* and its correspondences with the works of Nemesius of Emesa, Abū Qurrah and Moses bar Kepha. In 1948 fragments of the *CC* preserved in the manuscript *Vat.syr.191* were published by G. Furlani, “Estratti del *Libro della Causa delle Cause* in un manoscritto siriano Vaticano,” *Rivista degli Studi Orientali* 23 (1948) 37–45.

⁹ See Nöldeke (as in n.4) 1002–1003. Nöldeke also pointed out some correspondences between the *CC* and the works of the Muslim “Brethren of Purity” (cf. I.R. Netton, *Muslim Neoplatonists: An Introduction to the Thought of the Brethren of Purity*, Islamic Surveys 19 [Edinburgh 1991]), but rightly remarks that the explanation for that is to be found in the common cultural background of the time rather than in the assumption that the author of the *CC* was directly influenced by that literature.

¹⁰ *CC*, Introduction; 6, l.9/7.

the perfect knowledge of the Truth basically concerns the knowledge of God being the "Cause of all causes," the Creator of the Universe.¹¹ Furthermore the work is composed not only for his own religious community,¹² but for all peoples, and its contents should be accessible to all bodies and ranks of society.¹³ Finally, the work should inform its reader about all knowledge in every area, including *inter alia* theology, philosophy, anthropology, the sciences, religions and cultures, geography, ethnology, and sociology.¹⁴

If one should look for one simple head-word to characterise the purpose of the work as professed by the author, the best choice would be "universality." How can every single human being, living in the confused, complex and diversified reality of the world, find the one universal principle of truth, which applies to any one at any place, and by which the order of the created world in all its facets and its purpose become lucid and explicable? The author's answer to this question—as may be deduced from his remarks throughout the *CC*—may be summarised as follows. First of all one should retreat from the turmoils of the world and seek the seclusion of a monastery or another quiet place.¹⁵ There, the human soul can be purified from the "strange" passions, which do not belong to the nature of the soul and trouble its natural limpidity.¹⁶ Once the soul has reached the state of rest and cleanness, man can fully use the rational faculty of his soul and take the first step on the way towards the knowledge of the Truth.¹⁷ However, this first step should not be taken by reading the books of the Gentiles, since these books often present different and even conflicting views; moreover, they are not accepted by all.¹⁸ The first step is to read the "Book of Na-

¹¹ Cf. *inter alia* *CC*, Introduction; 6, ll.18–19, 12, l.16/8, 16.

¹² See *CC*, Introduction; 10, ll.10–20/13.

¹³ *CC*, Introduction; 6, ll.9–11/7–8.

¹⁴ Cf. also the author's summary added to the table of contents in *CC*, Introduction; 4, l.20–5, l.17/5–6.

¹⁵ *CC* I:4; 26, ll.9–12/34.

¹⁶ *CC* I:4; 26, ll.12–15/34. See further below, n.47.

¹⁷ I use the word "step" here to mean a process of gradual deepening of knowledge, which belongs to one distinct stage of the tripartite epistemological scheme in the *CC*.

¹⁸ This is discussed in *CC* I:2; cf. also *CC* I:4, 5; 26, l.20–27, l.1, 37, ll.21–23/35, 48.

ture"; for Nature is prior to books written by human beings, and Nature is the common father and teacher of the human race.¹⁹ The reflection on man (being the microcosm) and Nature (being the macrocosm)²⁰ then leads to the awareness that there is one God, who is the Creator and Ruler of the Universe,²¹ and also to the insight of how God's nature and man's place, role and final destination in the world must be defined.²² The second step consists in the reading and the study of the books. Here one should concentrate primarily on the description of the genesis of Creation by Moses, since the three religions of the Christians, Jews and Muslims with all their different confessions and sects accept the authority of Moses.²³ However, the study of this book still does not lead to the perfect knowledge of the Truth, since it was composed for "children" at a time when the human race was not yet ripe for "consuming" the perfect teaching.²⁴ The third and final step is made by the reception of the perfect teaching of the Holy Gospel (the spiritual Law), which leads to the perfect knowledge of the Truth, being the highest (spiritual) level which mankind can attain, since it surpasses both the level of the natural Law and the level of the written Law.²⁵

Considering the development of the author's arguments throughout the *CC*, we may compare his description of the way towards the perfect knowledge of the Truth with the mounting of a pyramid consisting of three levels: the first level is accessible to every human being who brings his rational soul in the right condi-

¹⁹ *CC* I:2, 4; 19, II.4–13, 26, I.16–27, I.5/24–25, 35, and *passim*.

²⁰ *CC* I:4; 27, II.7–14, 32, I.23–33, I.7/35, 42. See also below, n.44.

²¹ *CC* I:4; 34, II.3–13/44. The topic that there is one Creator is discussed in *CC* I:5.

²² These topics are discussed successively in *CC* I:6–III:9.

²³ *CC* IV:3, 5; 157, II.4–19, 178, II.5–8/204–205, 232.

²⁴ *CC* IV:3, 4; 157, I.22–158, I.12, 162, I.8, 163, I.3, 163, I.22–164, I.3, 165, II.17–21, 166, II.3–7/205–206, 211–213, 215–216.

²⁵ The human race has three teachers: reason (the natural Law = the Book of Nature), Moses (the written Law = Pentateuch) and the Teacher and Lord of all people (Christ) of the perfect Book (the spiritual Law = Gospel); *CC* IV:4; 163, I.20–164, I.5, 166, II.1–3, 19–21/213, 216–217. The now lost Discourses VIII–IX concerned the spiritual Law, including the topics of the incarnation of God the Word and the perfect doctrine of the Lord; *CC* I:6, IV:3, 4; 51, II.19–23, 158, II.12–17, 166, II.17–22/66, 206, 217.

tion; the second level is only accessible for those who, like the monotheistic religions of the Christians, Jews and Muslims, acknowledge the (divine) authority of Moses and other Old Testament prophets;²⁶ the apex of the pyramid can be attained only by those who accept the Christian doctrine. The author's "universality" is, in fact, a demonstration that Christianity is the "universal religion," since only this religion embraces the three levels of knowledge leading to the perfect knowledge of God. The actual purpose of the *CC* appears to consist in a plain apology for the Christian religion rather than in the intention to promote mutual understanding between Christians, Muslims and Jews at the cost of Christian religious identity; and it is—in my view—first of all the tradition of discussions with the Muslim *mutakallimūn*, which exerted a fundamental influence on the *CC*'s argument that Christianity is the only true universal religion. The anthropological argumentation based upon human reason alone, by which the oneness of God over against Qur'ānic criticism is explained in conformity with the Christian doctrine of the Trinity,²⁷ exactly follows the apologetic scheme which Theodore Abū Qurrah (c.750-c.825) had already developed in his tract *On the Existence of the Creator and the True Religion*.²⁸ As Sidney Griffith has recently argued, Abū Qurrah's

²⁶ For the role of the Old Testament prophets, who preceded the coming of the spiritual Law, see *CC* IV:4; 166, ll.7–21. This section contains an implicit polemic against the Muslims, since it demonstrates that the service of the prophets came to an end with the coming of Christ.

²⁷ *CC* I:5; 39, l.6/50, adopts Qur'ānic terminology in saying that God has no companion (*ḥabrā*) or partner (*šawṭāpā*), showing in the following section (I:6) how the Christian Trinitarian doctrine is to be explained (cf. Qur'ān 3:69; 13:17; 16:29,59).

²⁸ There is now a new critical edition of the Arabic text of this tract by I. Dick, *Théodore Abuqurra, traité de l'existence du createur et de la vraie religion*, *Patri-moine Arabe Chrétien* 3 (Jounieh/Rome 1982). German translation by G. Graf, *Des Theodor Abū Qurra Traktat über den Schöpfer und die wahre Religion*, *Beiträge zur Geschichte der Philosophie des Mittelalters. Texte und Untersuchungen*, Bd.XIV, Heft 1 (Münster i.W. 1913). Theodore argues that man's being created in the likeness of God (Gen.1:27) makes that reason can conclude from the analogy Adam-God that God is three divine persons, viz. one who generates (Father), one being generated (Son) and one emanating (Holy Spirit); cf. Dick (ed.) 228; Graf (tr.) 41. According to the *CC* the analogy man-God leads to the "natural" conclusion that God is reason/mind (*ḥawnā*) having the property of generating (*yālūdūtā*) = Father, word (*meltā*) having the property of being generated (*ilīdūtā*) = Son, and

apologetic methodology was deeply influenced by the Christian-Islamic religious discourse of the first Abbasid century.²⁹ There are many more examples of the CC's using the arguments of anti-Islamic polemics, for example in its discussion of human free will,³⁰ but the topic of the Christian doctrine of the Trinity, being one of the main issues of Christian-Muslim disputation,³¹ runs

spirit (*rūḥā*) having the property of emanation/procession (*nāpūqūtā*) = Holy Spirit; see CC I:6, 8, 10, III:6, IV:3, VII:1; 53, II.7–10, 62, II.3–5, 72, II.20–21, 146, II.5–6, 156, II.7–9, 253, I.17/68, 79, 93, 188, 203, 332. See also below, n.38.

²⁹ S.H. Griffith, "Faith and Reason in Christian Kalām: Theodore Abū Qurrah on Discerning the True Religion," in: S.Kh. Samir, J.S. Nielsen (eds.), *Christian Arabic Apologetics during the Abbasid Period (750–1258)*, Studies in the History of Religions 63 (Leiden/New York/Köln 1994) 1–43; for the life, works and influence of the Arabophone Melkite scholar Abū Qurrah, see Griffith's rich bibliography in the notes of this article.

³⁰ Cf. CC I:1, 4, 9; 14, I.18–15, I.1, 36, II.7–9, 72, II.1–9/19, 46, 92, where the doctrine of the free will shows correspondences with Ephremian theology; see N. El-Khoury, *Die Interpretation der Welt bei Ephraem dem Syrer. Beitrag zur Geistesgeschichte*, Tübinger Theologische Studien 6 (Mainz 1976) 111–120. For the topic of the free will in anti-Islamic polemics, see S.H. Griffith, "Free Will in Christian Kalām: The Doctrine of Theodore Abū Qurrah," *Parole de l'Orient* 14 (1987) 97–107; idem, "Free Will in Christian Kalām: Moshe bar Kepha against the Teachings of the Muslims," *Le Muséon* 100 (1987) 143–159. See further below, n.43.

³¹ Cf. *inter alios* S.H. Griffith, "Disputes with Muslims in Syriac Christian Texts: from Patriarch John (d.648) to Bar Hebraeus (d.1286)," in: B. Lewis-F. Niewöhner (eds.), *Religionsgespräche im Mittelalter*, Wolfenbütteler Mittelalter-Studien 4 (Wiesbaden 1992) 254; A. van Roey, *Nonnus de Nisibe, traité apologétique. Étude, texte et traduction*, Bibliothèque du Muséon 21 (Louvain 1948) 56–57; B. Holmberg, *A Treatise on the Unity and Trinity of God by Israel of Kashkar (d.872). Introduction, edition and word index*, Lund Studies in African and Asian Religions 3 (Lund 1989) 134–138; Kh. Samir, *Le traité de l'unité de Yaḥyā ibn 'Adī (893–974). Étude et Édition critique*, Patrimoine Arabe Chrétien 2 (Jounieh/Rome 1980) XVII–XXVI; E. Platti, *Yaḥyā ibn 'Adī, théologien chrétien et philosophe arabe. Sa théologie de l'Incarnation*, Orientalia Lovaniensia Analecta 14 (Leuven 1983) 122–123; idem, "Yaḥyā b. 'Adī and his Refutation of al-Warrāq's Treatise on the Trinity in Relation to his other Works," in: Samir and Nielsen (eds.), *Christian Arabic Apologetics* (as in n.29) 172–191. In particular a further study of the relations between the CC and the works of the Jacobite apologist Yaḥyā ibn 'Adī may be prolific; cf. e.g. the three names of God in CC I:7; 58, II.4–5/74: "the good, the rich and the wise," and Yaḥyā ibn 'Adī's three attributes of God: good-wise-powerful (Platti, "Yaḥyā b. 'Adī and his Refutation," 179–180) and the very same way in which Yaḥyā defines the "properties" of the three hypostases of the divine Trinity (see above, n.28 and Platti, *ibid.*, 183–184).

through the *CC* like a continuous thread.³²

No Muslim would be convinced by the author's arguments that Christianity is the universal religion, and we may assume—considering the very traditional topics of Christian-Muslim debate in the *CC*—that not even the author himself expected that his Syriac work would produce that effect in the predominantly Islamic and Arabic-speaking milieu of his day. The *CC* was composed for his own religious community, not even for Near Eastern Christianity in general. We may be pretty sure that the author in the chapter on the different confessions of the Christians (now lost) argued that the Christological doctrine of his (Jacobite) community most adequately concurs with the “natural” definition of the Trinitarian concept of God. A foretaste of that can be found in the chapter on the stones and the metals, where the union of the divine and human nature of Christ is compared with the *’ēliqṭrōn* (ἤλεκτρον), being an alloy of gold and silver. His definition of Christ being *one hypostasis and one incarnated nature* most clearly distinguished his own Jacobite Christological confession from that of the other communities of Near Eastern Christianity, both the Melkites and the Nestorians.³³ The apologetic tendencies of the *CC*, however, mainly concern Islam, as will appear from the next section of this paper.

2. THE LITERARY STRUCTURE OF THE COMPOSITION

Job of Edessa, an early Syriac encyclopaedist and contemporary of Abū Qurrah, reports in his *Book of Treasures* (c.817) that he once

³² In addition to the references in n.28, cf. also *CC* I:10; 77, ll.12–16/99 (comparing the sun with the Trinity); III:1, IV:4, VII:2; 116, ll.4–8,18, 118, ll.15–17, 172, ll.10–13/148–149, 151–152, 224 (the three congregations of the spiritual beings refer to the Trinity); IV:4; 166, ll.7–13/216 (the Old Testament prophets show the Trinity); VII:2; 268, ll.18–169, l.1/351 (the twelve stones of the high priest's breastplate [Ex. 28:17–21] symbolize the Trinity).

³³ *CC* VII:2; 268, ll.9–13/351. Cf. J. Lebon, *La christologie du monophysisme syrien*, in: A. Grillmeier, H. Bacht (eds.), *Das Konzil von Chalkedon*, I (Würzburg 1951) 425–580; A. de Halleux, *Philoxène de Mabbog. Sa vie, ses écrits, sa théologie* (Louvain 1963) 378–392; R.C. Chesnut, *Three Monophysite Christologies: Severus of Antioch, Philoxenus of Mabbog, and Jacob of Sarug* (Oxford 1976). For the Cyrilline background of the *CC*'s formula, see J.A. McGuckin, *St. Cyril of Alexandria: The Christological Controversy. Its History, Theology, & Texts* (Leiden/New York/Köln 1994) 193–222.

composed a book, proving that Christ is both God and man according to the following scheme: (a) first of all he presented ten syllogisms based on Nature alone, which prove that Christ is both God and man; then he added to these "natural syllogisms" testimonies (b) from the books of the Prophets and (c) from the Holy Gospel, which demonstrate the same. In so doing, he followed the method of the three Laws: (a) the natural, (b) the written and (c) the spiritual Law, a method that points to the Holy Trinity.³⁴ Job's method in this apologetic tract—undoubtedly inspired by theological debate between Muslim and Christian scholars in Baghdad³⁵—lies at the root of the argumentation in the *CC*, and has decisively influenced its literary structure and the systematisation of encyclopaedic knowledge in this work.

In terms of generic classification the *CC* is related to the genre of the hexaemeron.³⁶ Following the earlier examples of this genre in

³⁴ Job of Edessa, *Book of Treasures*, VI,8, A. Mingana (ed./tr.), *Encyclopedia of Philosophical and Natural Sciences as Taught in Baghdad about A.D.817 or Book of Treasures by Job of Edessa*, Woodbroke Scientific Publications 1 (Cambridge 1935) 458, col.2, ll.13–20/278–279. On this work, see M. Levey, "Chemical Notions of an Early Ninth-Century Christian Encyclopedist," *Chymia* 11 (1966) 29–36; B. Lewin, "Job d'Édesse et son Livre des Trésors," *Orientalia Suecena* 6 (1957) 21–30; U. Weisser, *Das "Buch über das Geheimnis der Schöpfung" von Pseudo-Apollonius von Tyana*, *Ars Medica*, III.Abt., Bd.2 (Berlin/New York 1980) 55–63.

³⁵ It is beyond question that this work of Job (now lost) was directed against the Muslim rejection of Christ's divinity. It may be inferred from Job's remarks that he wrote this work and other works to provide "the believers" (Christians) with rational arguments against Muslim tenets which were opposed to Christian doctrines. The anti-Islamic apologetic character of another work by Job, viz. the book *On Faith*, are also obvious; this work should demonstrate the rightness of the Christian Trinitarian doctrine and the Christian practices of baptism, eucharist and worship to the East; cf. *Book of Treasures*, VI,8, ed. Mingana (as in n.34) 458, col.2, ll.21–29/279. For Job's scholarly activity in Baghdad, see Mingana (as in n.34) XIX–XXIII; R. Degen, "Galen im Syrischen: Eine Übersicht über die syrische Überlieferung der Werke Galens," in: V. Nutton (ed.), *Galen: Problems and Prospects* (London 1981) 131–166; F. Sezgin, *Geschichte des arabischen Schrifttums*, III (Leiden 1970) 230–231; G. Endress, "Die wissenschaftliche Literatur," in: H. Gätje (ed.), *Grundriß der Arabischen Philologie*, II: *Literaturwissenschaft* (Wiesbaden 1987) 410–411.

³⁶ Cf. in general F.E. Robbins, *The Hexaemeral Literature. A Study of the Greek and Latin Commentaries on Genesis* (Chicago 1912).

Jacobite tradition—the hexaemeron of Jacob of Edessa (died 708)³⁷ and the hexaemeron of Moses bar Kepha (died 903)³⁸—the *CC* systematises encyclopaedic knowledge concerning the Creation according to the biblical account of Genesis 1 (Discourses IV-VII), introducing the hexaemeron by an epistemological and theological dissertation on God (Discourse I)³⁹ and the purpose of the Creation (Discourse II:1-2).⁴⁰ But here the general correspondences in literary structure and composition between the *CC* and the older Syriac hexaemera end. Discourse II:3-8 explains that human reason can recognise that there is also an invisible created world and a future world of complete renewal of the visible and invisible Creation. Discourse III deals with the purpose of the creation of man, man's nature, his role in the created world and again with epistemological questions concerning man's knowledge of God. The final part deals with the *theoria*, the deeper spiritual meaning of the Creation, with the question of the gradual ascent of man's knowledge by study and way of life to the highest level of knowledge and with the question whether the knowledge of the Truth is infinite and eternal (Discourse VIII),⁴¹ and, in addition, with questions concerning the world to come (Discourse IX).⁴² The author of the *CC* seems to reorganise the pattern of the older Hexaemera by following the

³⁷ I.-B. Chabot (ed.), A. Vaschalde (Latin tr.), *Iacobi Edesseni Hexaemeron seu in opus creationis libri septem*, CSCO 92, 97 (Louvain 1928, 1932).

³⁸ L. Schlimme, *Der Hexaemeronkommentar des Moses bar Kepha. Einleitung, Übersetzung und Untersuchungen*, Göttinger Orientforschungen, I.Reihe: Syriaca, Bd.14, Teil I, II (Wiesbaden 1977).

³⁹ Jacob of Edessa's hexaemeron was preceded by a treatise (now lost) *On the First, Creating, Eternal and Omnipotent Cause*, Chabot-Vaschalde (ed./transl.) (as in n.37) 2, col.1, ll.6-10, 355, col.2, ll.19-29/1, ll.6-7, 304, ll.11-15. The first Discourse of Moses bar Kepha's hexaemeron (ch.1-10) deals with epistemological questions and questions concerning God; Schlimme (tr.), I (as in n.38) 92-123. In the order and in several titles of chapters the *CC* concurs with Moses' pattern. The author of the *CC* probably knew Moses' work, though the style of both works is fundamentally different (Moses' style is schematic and scholastic, the *CC*'s style is rhetorical and homiletic). For the structural differences between Jakob's and Moses' hexaemeron, see Schlimme, II (as in n.38) 684-688.

⁴⁰ Again several themes in the *CC* occur in Moses' first Discourse. The question of the purpose of the Creation is discussed in chapter 24; Schlimme (tr.), I (as in n.38) 151.

⁴¹ For the contents of this lost Discourse, see *CC*, Introduction; 4, ll.8-14/4-5.

⁴² For the contents of this lost Discourse, see *CC*, Introduction; 4, ll.14-19/5.

tripartite scheme of the natural, the written and the spiritual Law: treatises I-III concern the natural Law, treatises IV-VII the written Law, and treatises VIII-IX the spiritual Law.⁴³ And thus the literary structure of the composition runs parallel with the epistemological scheme according to which the rational soul in three steps can attain the perfect knowledge of the Truth. Deeply influenced by Neoplatonic thought, the author of the *CC* makes anthropology the foundation of his whole dissertation;⁴⁴ therefore, the topic of the nature of man is treated within the framework of the natural Law.⁴⁵

⁴³ For the *CC*'s remarks on the natural, written and spiritual Law, see above, n.25. That the Discourses VIII-IX concern the spiritual Law is clear both from their contents and the author's remark in *CC* IV:3; 158, ll.12-17/206, that he will discuss "the perfect teaching," "the perfect food," that brings man near to the perfect knowledge of the Truth and instruct him in the love of the Lord and unite him with his Creator (i.e. the Gospel), in a later section of his work. The topic of the Gospel leading to the highest degree of perfection undoubtedly was discussed in Discourse VIII. For the topic of the love of God and the love of human beings, which according to Abū Qurrah shows the truth of the Christian religion, cf. Griffith, "Faith and Reason in Christian Kalām: Theodore Abū Qurrah" (as in n.29) 21-22. The topic of the divine Gospel being the highest level in surpassing by its ethics the Muslim law (in fact the Qur'ān) already occurs in the oldest specimen of Jacobite apologetics against Islam; cf. G.J. Reinink, "The Beginnings of Syriac Apologetic Literature in Response to Islam," *Oriens Christianus* 77 (1993) 180. As to Discourse IX, we may assume that the author of the *CC* like Abū Qurrah exposed the Christian doctrine of the future life according to the Gospel and Christian ascetism (cf. Griffith, *ibidem*, 22-23). It is interesting to note that Job of Edessa concludes his *Book of Treasures* with a Discourse (VI) on the invisible created world (angels) and eschatological items like the end of the created world, the resurrection and the next world; ed. Mingana (as in n.34) 446, col.2, l.17-468, col.1, l.4/257-296. There are many correspondences between Job and the *CC*, but the *CC* discusses one part of the material within the framework of the natural Law (Discourse II:3-7, III:1) and the written Law (Discourse IV:4: angels) and the other part (where Job also argues on the basis of the Christian holy scriptures) in the section of the spiritual Law (Discourse IX).

⁴⁴ Cf. Klinge, "Die Bedeutung der syrischen Theologen" (as in n.8) 383-386. The *CC*'s basic issue is the microcosm-macrocosm analogy (*CC* I:4), at the root of which may lie Nemesius of Emesa's *De natura hominis* I:10, ed. C.F. Matthaei (Halle 1802; repr. Hildesheim 1976) 63-67; tr. W. Telfer, *Cyril of Jerusalem and Nemesius of Emesa*, The Library of Christian Classics 4 (London 1955) 254-255; cf. also A. Kallis, *Der Mensch im Kosmos. Das Weltbild Nemesios' von Emesa* (Münster 1977). For Nemesius in Syriac tradition, see Weisser, *Das "Buch über das Geheimnis der Schöpfung"* (as in n.34) 63-68.

⁴⁵ The *CC* does not treat the topic of the creation of man within the framework of the hexaemeron section (Discourses IV-VII) unlike Jacob of Edessa and Moses

But there is still another aspect by which the *CC* stands out from the hexaemeron-literature; that aspect is most closely connected with the Syriac monastic tradition. Man's gradual ascent to the *perfect* knowledge of the Truth is not to be understood as a purely intellectual process alone; it is also dependent on his moral conduct. In fact, morality is the prerequisite for following the way of knowledge successfully to its highest level, that of the spiritual knowledge, where both the natural and the written Law play no role any more.⁴⁶ Inspired by the doctrine of the soul in Syriac asceticism and mysticism,⁴⁷ the *CC* makes the gradual deepening and increase of man's knowledge of the Truth concurrent with the ascetic battle against the passions which darken the soul's natural limpidity.⁴⁸ At the apex of the pyramid the epistemological, the ascetic and the literary scheme merge in one and the same culminating point: the *theoria* of God, the mystical union with God, and the complete renewal of man in the world to come.⁴⁹

bar Kepha, who discuss the item in connection with the sixth day of Creation.

⁴⁶ *CC* IV:3; 160, II.4–10/208.

⁴⁷ There are many correspondences here between the *CC* and the works of the Syriac mystic Isaac of Niniveh (second half of the seventh century), e.g. the soul's natural limpidity, perfection and inaffectability, the soul being God's image; the soul's nature to understand the sensible and intelligible created things; solitude being the beginning of the purification of the soul; the constant battle against the passions being necessary to reestablish the soul in its primordial nature; the highest degree of the mystical life being the soul's contemplation of the truth of God; the highest degree of the spiritual state being described as drunkenness with God's love, etc.. These ideas occur again and again throughout the *CC*. Cf. A.J. Wensinck (transl.), *Mystic Treatises by Isaac of Nineveh*, Verhandelingen der Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeling Letterkunde, Nieuwe Reeks, Deel XXIII/1 (Amsterdam 1923); S. Beggiani, *Introduction to Eastern Christian Spirituality: The Syriac Tradition* (London-Toronto 1991) 72–81. The author of the *CC* may also have had knowledge of Moses bar Kepha's treatise *On the Soul*; cf. e.g. the rejection of the opinion of the philosophers that the rational soul's powers are reason, anger and desire in *CC* III:2; 125, II.7–9/160, and by Moses, *On the Soul* 10, O. Braun (transl.), *Moses bar Kepha und sein Buch von der Seele* (Freiburg im Breisgau 1891) 59.

⁴⁸ Cf. *CC*, Introduction; I:2, 8, III:5, 7; 12, II.1–7, 20, I.22–21, I.16, 70, II.5–11, 143, I.8–144, I.7, 146, I.21–148, I.11/15, 27, 89–90, 185–186, 189–191, and many other examples throughout the *CC*.

⁴⁹ Cf. *CC* I:10, II:2, 3, 4, 6, 7, 8, III:4, 6, IV:3; 73, I.15–75, I.3, 85, I.17–86, I.5, 87, II.13–17, 89, I.19–90, I.2, 93, II.11–16, 98, I.15–99, I.2, 103, II.7–15, 105, I.20–106, I.1, 108, II.15–22, 112, I.9–114, I.1, 138, II.13–22, 146, II.11–16, 156, II.15–

It is the fusion of three literary traditions—apologetics, the exegetis of the biblical account of the Creation according to the hexaemeron-tradition, and the mystical-ascetical tradition—which makes the *CC* a unique work in the history of the Syriac literature. However, the way in which these literary traditions are assimilated as regards both content and literary structure is essentially determined by the apologetic method which attempts to demonstrate the unique “universality” of Christianity and confirm the Christian religious identity in a predominantly Islamic world.

3. CONCLUSION

The thesis of this paper is clear: the *CC* is not to be considered a unique work because of its purported universal outlook. When the author in his introduction begs his co-religionists—alluding to Matth.15:26—not to blame him for giving the children’s bread to “foreign children,”⁵⁰ he applies a literary strategem in support of his main argument. For, when Christianity is the “universal religion,” giving the only all-encompassing explanation of God’s design in creating visible and invisible things, then, of course, its religious and “scientific” knowledge can only be destined “for all peoples under the heavens.”

The most remarkable feature of the *CC* is not its claim of universality, but the way in which it uses current encyclopaedic knowledge within the framework of a composition of which the structure follows the lines of apologetic argumentation with the purpose to define and consolidate the communal identity. Considering the cultural developments within Jacobite scholarly milieus in medieval times, I would prefer to date the *CC* somewhere between the end of the tenth and the end of the eleventh century. The author very likely was acquainted with the works of the prolific writer and bishop of Mosul Moses bar Kepha (died 903), at least with Moses’ hexaemeron.⁵¹ He stands in the tradition of Christian apologists like the

18, 158, ll.12–17, 159, l.20–160, l.10/94–95, 109, 111–112, 114–115, 119, 125–126, 131–132, 135, 138–139, 143–145, 178, 189, 203, 206, 208, and many other instances.

⁵⁰ *CC*, Introduction; 10, ll.20–23/14.

⁵¹ See above, nn.39–40, 47.

Melkite Arabophone writer Theodore Abū Qurrah and, in particular, the author's co-religionist, the Arabophone author Yaḥyā b. ʿAdī (892-974),⁵² who defended Christian tenets by philosophical arguments based upon human reason alone, since the Muslims rejected the authority of Christian holy writings. For historical reasons, I consider the twelfth century a less probable date for the composition of the *CC*.⁵³ One may rather suggest that the author of the *CC* was the predecessor of the great Jacobite scholar and bishop of Amida Dionysius bar Ṣalībī (died 1171). The latter composed for the first time in many centuries a comprehensive apologetic treatise *in Syriac*, defending the veracity of Christian doctrines and practices over against the challenges of Islam.⁵⁴

⁵² See above, n.31.

⁵³ See above, n.5.

⁵⁴ Cf. Griffith, "Disputes" (as in n.31) 268–269; idem, "Dionysius bar Ṣalībī on the Muslims," in: H.J.W. Drijvers, R. Lavenant, C. Molenberg, and G.J. Reinink (eds.), *IV Symposium Syriacum 1984: Literary Genres in Syriac Literature*, *Orientalia Christiana Analecta* 229 (Roma 1987) 353–365.

THE LIMITS OF KNOWLEDGE: HÉLINAND DE FROIDMONT'S *CHRONICON*

E. L. SAAK

The function of knowledge in society—by whom and for whom knowledge is created and the means by which knowledge serves to structure social manipulation in the class division between the “have’s” and the “have-not’s,” not only in terms of actual possession of knowledge, but also in terms of the access to acquiring knowledge—is inseparable from structures of power and domination. As Michel Foucault put it, “...the exercise of power itself creates and causes to emerge new objects of knowledge and accumulates new bodies of information....The exercise of power perpetually creates knowledge and, conversely, knowledge constantly induces effects of power.”¹ Knowledge and its transmission cannot be the object of study divorced from the structures of power that produce knowledge, without losing its contemporary *and* historical relevance. This is especially valid for encyclopaedic knowledge, which can be defined as a society’s common stock of knowledge.² Yet such knowledge is not absolutely common, but is dependent upon a specific subuniverse,³ or in other terms, both knowledge and the meaning of knowledge are system specific and to interpret such knowledge and its meaning properly, one must know with what system one is dealing.⁴ As a product of the creation of knowledge within the power structures of a given system, encyclopaedic knowledge—as “knowledge of the contingent properties of words,”⁵ or as forming the cultural encyclopaedia “synchronically constituted, formed by the sum of all the discourses available to a

¹ M. Foucault, *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977* ed. C. Gordon, (New York 1980) 51-52.

² See P. Berger and T. Luckmann, *The Social Construction of Reality. A Treatise in the Sociology of Knowledge* (New York 1966) 41-46.

³ P. Berger and T. Luckmann, *Social Construction* (as in n.2) 85-92.

⁴ See N. Luhmann, *Soziologische Aufklärung I-IV* (Opladen 1970-1987); idem, *Soziale Systeme. Grundriss einer allgemeinen Theorie* (Frankfurt 1984); and idem, *Die Wissenschaft der Gesellschaft* (Frankfurt 1990).

⁵ G. Lakoff, *Women, Fire, and Dangerous Things. What Categories Reveal about the Mind* (Chicago 1987) 172.

culture,"⁶—when textualised serves not only to make general knowledge available or even to encapsulate all knowledge, but also to restrict knowledge to the socially acceptable meaning of a given system's cultural encyclopaedic discourse.

Encyclopaedic knowledge functioning to set the limits of knowledge can aptly be illustrated by the early thirteenth-century "Cistercian encyclopaedia," the *Chronicon* of Hélinand de Froidmont. Not much is known about the life of Hélinand. He was born around 1160 in the region of Beauvais, and died sometime after 1229. Of noble origin, Hélinand studied with the pupil of Abelard, Ralph of Beauvais, and then pursued the life of a *trouvère*, before undergoing a conversion around 1182 and entering the Cistercian monastery at Froidmont.⁷ Hélinand became a renowned preacher, the author of the well-known vernacular *Les Vers de la Mort*, and during the years 1211-1223, precisely when vernacular historiography in France began to flourish,⁸ Hélinand set his pen to writing a world chronicle in Latin, which became a major source for Vincent of Beauvais' *Speculum Maius*.⁹

A complete description of the *Chronicon* and its transmission would require a separate study.¹⁰ For our purposes here, it suffices to note that Hélinand's work, as available today, exists in two manuscripts and one early-modern edition.¹¹ The early-modern

⁶ M. Irvine, *The Making of Textual Culture. 'Grammatica' and Literary Theory 350-1100* (Cambridge 1994) 246.

⁷ For Hélinand's life, see F. Wulff and E. Walberg (eds.) *Les Vers de la Mort par Hélinand, Moine de Froidmont* (Paris 1905) iii-xxvii.

⁸ See G. Spiegel, *Romancing the Past. The Rise of Vernacular Prose Historiography in Thirteenth-Century France* (Berkeley 1993).

⁹ See E.R. Smits, "Vincent of Beauvais: A Note on the Background of the *Speculum*," in: W.J. Aerts, E.R. Smits, J.B. Voorbij (eds.), *Vincent of Beauvais and Alexander the Great: Studies on the "Speculum Maius" and its Translations into Medieval Vernaculars* (Groningen 1986) 1-9.

¹⁰ I am currently preparing a critical edition of Hélinand's *Chronicon*, together with M. Geertsma, J.B. Voorbij, and M.M. Woesthuis, for *Corpus Christianorum: Continuatio Mediaevalis*.

¹¹ The manuscripts are: Vatican, MS. Reg. lat. 535; London, MS. BL, Cotton Claudius B. IX. Books 45-49 of the *Chronicon* were printed in 1669 by B. Tissier, *Bibliotheca Patrum Cisterciensium* 7 (Paris 1669) and reprinted in PL 212. See also L. Delisle, "La chronique d'Hélinand moine de Froidmont," in: *Notices et documents publiés pour la Société de l'Histoire de France* 40 (1884) 141-154; M. Paulmier-Foucart, "Hélinand de Froidmont. Pour éclairer les dix-huit premiers

edition, however, contains only books 45-49, which begin with the year 634 and end rather abruptly in 1204. The London manuscript of the *Chronicon*, from the early fifteenth century, preserves an early version of the text of books 1-16, albeit with some gaps; and the Vatican manuscript, written in a fine gothic book-hand of the second quarter of the thirteenth century, is an elegant codex containing books 1-18. In other words, the text available to us exists in fragments, although rather extensive fragments; even with the loss of books 19-44—which we know occurred in Hélinand's own day—this is a massive work. In the 242 folios, the 484 pages, the 968 columns of the Vatican manuscript, Hélinand only managed to trace the march of time from the first day of creation to the death of Alexander the Great. Just what Hélinand thought he was doing with such extensive treatment is, unfortunately, left for his interpreters to attempt to discern; lacking a prologue, the work begins simply with the list of chapters of book one.

Hélinand's *Chronicon* is a highly intertextualised compilation. Consonant with medieval grammatical culture, it forms a textual pastiche, whereby, in the words of Martin Irvine, "the resulting collection forms an *interpretive* arrangement of texts."¹² Yet whereas the "classic" medieval encyclopaedists, such as Vincent, Bartholomaeus Anglicus, and Thomas of Cantimpré, described their works as compilations and their own activity as one of compiling, Hélinand used other verbs. It is not the verb *compilare* that we find in Hélinand's work, but rather *excerpere*, *exponere*, *explicere*, *adnotare*, and *tractare*. These admittedly do not occur frequently, and certainly do not function in any systematic or programmatic sense. Nevertheless, they indicate that Hélinand conceived of his work somewhat differently from the authors of encyclopaedias; if his *Chronicon* is a compilation, Hélinand did not view his task as one of simply compiling and placing in order ready-made material.

And yet Hélinand did not present his history according to a grand scheme; he was not writing a theology of history. Though he

livres inédits de sa chronique," *Spicae. Cahiers de l'atelier Vincent de Beauvais* 4 (1986) 81-95; idem, "Edition des titres des chapitres et des notations marginales d'après le ms. Vatican, Reg. lat. 535," *ibid.* 96-254.

¹² M. Irvine, *Textual Culture* (as in n.6) 428.

was indeed aware of the emplotment¹³ of previous authors according to the two cities, or the six ages of the world, or of the four universal empires, the only organisation that can be discerned in the *Chronicon* is the straight-forward progression of time, interrupted by frequent digressions, wherein Hélinand includes whatever material he feels pertinent to the historical line. There are “major” digressions and “regular” digressions, for lack of better terminology. Thus in book one we find regular digressions dealing with meteorological phenomena, the planets and the zodiac; then all of book two is a major digression concerning the creation of the angels and demons, or rather, all of book two up until chapter 89, whose title is simply, “After the treatise on the spiritual nature [book 2] returns the exposition of the words of Genesis;”¹⁴ in book four there is a regular digression on the rainbow; in book six a major digression to counter astrology and a regular digression on the six ages of the world; and then all of book eight is a major digression on the origin of souls and on hell—which includes a geography of hell, whose nine levels parallel the nine orders of angels created on the first day.¹⁵ This is by no means a complete list, but I hope the point is made; if the *Chronicon* does not present a systematisation of knowledge, it is, nevertheless, encyclopaedic. As Irvine has explained,

The idea of the encyclopedia allows textual knowledge to be organized transtextually and transgenerically by extracting the discourses of various arts and disciplines from the genres in which they are articulated. An encyclopedia is thus an organized summation of discourses found dispersed throughout many texts and genres in the cultural library...The distinguishing feature of the encyclopedia is its organization by discursive field rather than by work or genre.¹⁶

¹³ For the term emplotment, see P. Ricoeur, *Time and Narrative*, 3 vols. (Chicago 1984-1988).

¹⁴ *Chron.* 2.89: *Post tractatum de natura spirituali reditur ad expositionem uerborum Genesis*. Vatican, MS Reg. lat. 535, 29b (the double-columned manuscript is paginated; all future reference to the *Chronicon* will be made to the Vatican manuscript as V, followed by the page number and column).

¹⁵ For Hélinand's digressions, see M.M. Woesthuis, “*Nunc ad hystoriam reuertamur*: History and Preaching in Helinand of Froidmont,” *Sacris Erudiri* 34 (1994) 313-333.

¹⁶ M. Irvine, *Textual Culture* (as in n.6) 430; cf. *ibid.* 241-242.

We must look beyond Hélinand's compilation of authorities and the organisation of his work as such—which we could always adorn with the wonderfully learned, even if slippery and vague Latin terms *compilatio* and *ordinatio*¹⁷—in order to perceive the extent to which Hélinand's compilation was intended to draw the boundaries of permissible knowledge within a particular social system, namely, the Cistercian Order.

Hélinand frequently comments, even if briefly, on the texts he presents. Indeed, he offers texts at times precisely as negative authorities, such as the material from Sahl Ibn Bishr—quoted as an example of the astrological speculations that are to be avoided by true Christians¹⁸—and the astrological treatise of Odo Campanus in book six, the *Libellus de efficatia artis astrologie*, which has been preserved only thanks to Hélinand's fastidiousness in making sure that his readers were well acquainted with erroneous opinions. In book eight, dealing with the origin and destiny of souls, Hélinand includes long sections from Macrobius and does so, he tells us: "...so that [the errors of the philosophers] better understood, might be more easily watched out for."¹⁹ If Hélinand was compiling, he was compiling as a means of expositing, explaining, treating—and I would add—arguing, defining and circumscribing, and he did so somewhat differently from the encyclopaedic attempts to encapsulate the entire world and its history in the pages of a book. To see to what degree this was so, we turn our sights more directly on book eight, one of Hélinand's major digressions from the *series temporum*, which takes as its point of departure the death of Joseph at the end of book seven.

Book eight is a frontal attack on a Platonic view of the soul, especially as enunciated by Macrobius, whereby pre-existing souls

¹⁷ See R.H. Rouse and M.A. Rouse, "Ordinatio and Compilatio Revisited," in: M.D. Jordan, K. Emery (eds.), *Ad Litteram. Authoritative Texts and Their Medieval Readers* (Notre Dame 1992) 113-134.

¹⁸ *Chron.* 1.30: *Hec pauca ideo de Zehel astrologo excepi ne uocabula appropriata arti mathematice etiam apud eos remanerent incognita qui tanquam fideles et catholici ipsam artem reprobant sicut uere reprobanda est tanquam nullius efficacie.* V 9a.

¹⁹ *Chron.* 8.8: *Hos errores philosophorum de ingressu animarum ad corpora et regressu a corporibus et de locis inferorum iccirco in hoc loco latius exposui, ut melius intellecti, facilius caueantur.* V 155a.

descend from heaven into mortal bodies in eternal reincarnation. After a lengthy discussion, Hélinand begins the tenth chapter of book eight by stating that he had gone into such matters to refute Macrobius who tried to prove "that souls descend from heaven, on the authority of the delphic oracle,"²⁰ namely, the dictum, "Know thyself," which Hélinand had argued was plagiarised from Scripture.²¹ Such errors, according to Hélinand, result from an ignorance of the soul's origin and destination. Hélinand argues that the knowledge of self consists in knowing man's composition, namely, the union of body and soul, created in the image and likeness of God. The Platonists were ignorant of the union of body and soul, unaware that the body as well would be resurrected to beatitude or to damnation, believing "that souls would always return to mortal bodies."²²

Throughout book eight Hélinand is crystal clear that he is directing his attack *contra Platonicos*. By singling out Macrobius, Hélinand brings the problem of the soul's origin into a different context from that of the wealth of material to be found in Augustine, upon which he draws heavily.²³ It is the *infideles*, he tells us in chapter 53, who do not believe the miracles and revelations of the saints, but hold up the sayings and arguments of the philosophers, against whom one must likewise bring philosophical

²⁰ Chron. 8.10: *Hec dicta sunt pro eo quod Macrobius ad probandum animas de celo lapsas inducit responsi delfici...* V 164b-165.

²¹ Chron. 8.8: *Visitans speciem tuam non peccabis* (Iob 5:24). *Olim apud delphos scriptum fuisse legitur in uetustissimo tripode Apollinis famosissimum illud oraculum consulenti quomodo ad beatitudinem perueniret: notis elytos idest nosce teipsum. Huius autem sententiae non est credendum Apollinem fuisse auctorem uel inuentorem, sed potius furem. Furatus est enim eam de presenti loco. Idem est enim nosse seipsum quam suam speciem uisitandi.* V 155b. According to Pierre Courcelle, Hélinand was unique in seeing a problem for Christianity in the interpretation of this precept. P. Courcelle, *Connais-toi Toi-Même de Socrate a Saint Bernard* (Paris 1974) 1.291.

²² Chron. 8.30: *Et quoniam sciebant animam in hoc mundo sine corpore non posse uiuere, putabant eam ante depositionem huius corporis aliud habuisse et adhuc post istud aliud habituram. Quia uero corpus hominis immortale posse fieri nec legerant nec audierant, putabant animas semper ad mortalia corpora redituras. Tota igitur huius erroris summa ab eo principio uidetur descendisse....* V 177a.

²³ For Augustine, see R.J. O'Connell, *The Origin of the Soul in St. Augustine's Later Works* (New York 1987).

reasoning and authorities.²⁴ Thus, we must ask just who these Platonists were, these *infideles*, whom Hélinand felt the need to refute. I would suggest, that the real target of book eight was not Plato and Macrobius *per se*, but the Platonists of Hélinand's day, namely, the Chartrians, for lack of a better term. Macrobius was one of the major sources for the Platonism of such authors as William of Conches and Bernard Silvestris, who portrayed the cosmos by means of a Platonic poetic. Although Hélinand frequently quotes the classical poets in the *Chronicon*, in book eight he stands staunchly against the *scurrilis adulatio et fabula poete*.²⁵ In treating Aeneas' descent into the underworld and visit with his father Anchises in book six of the *Aeneid*, Hélinand claimed that "Aeneas brought nothing back with him upon returning from the underworld except false dreams and pure lies."²⁶ "No wonder," he exclaimed, "if Virgil lied, [for] lying is part and parcel of his work as poet."²⁷ Here Hélinand based his interpretation on Virgil's use of *integumenta*: "by the most beautiful genera of *integumentum* (*pulcherrimo integumentum genere*) Virgil signified that Aeneas did not bring back even one trace of truth from the underworld."²⁸ This is the only place I have found in the *Chronicon* where Hélinand used the word *integumentum*. *Integumenta* were the basis for the Chartrians' composition and interpretation of cosmological myth, and book six of the *Aeneid* played a central role. According to Winthrop Wetherbee, the commentary on the first six books of the *Aeneid*, traditionally ascribed to Bernard Silvestris, (but very likely the work of Bernard of Chartres,) "...reduces Virgil's narrative to a series of *integumenta* showing the growth of understanding under

²⁴ *Chron.* 8. 53: *Sed quoniam infideles sanctorum miracula et reuelationes non credunt, philosophorum uero dicta et argumentationes extollunt, etiam philosophicis rationibus et auctoritatibus probandum est animam esse immortalem.* V 188b.

²⁵ *Chron.* 8.10, V 165a.

²⁶ *Chron.* 8.28: *Nichil ergo aliud attulit secum Eneas ab inferis regrediens, nisi falsa sompnia et pura mendacia.* V 176b.

²⁷ "*Chron.* 8.28: *Et quid mirum si poeta mentitur, hoc ad eius officium pertinet....* V 176b; cf. M. Irvine, *Textual Culture* (as in n.6) 235-241.

²⁸ *Chron.* 8.28: *...pulcherrimo integumentum genere significauit poeta Enean ab inferis nec unam ueritatis attulisse scintillulam...* V 176b.

the influence of Chartrian *paideia*.”²⁹ In this text, Aeneas’ descent into the underworld and meeting with Anchises represents the beginning of the path towards the knowledge of God.³⁰ For Hélinand, it is the prime example of the lies of poets, and the *integumentum* reveals not a higher level of truth, but rather pipe dreams and falsehood. A stronger rebuke of the Chartrian ideal cannot be imagined.

That Hélinand was not associated with the schools, as has previously been suggested,³¹ but was even wary of the new “worldly learning” is glimpsed in book 48 of the *Chronicon*. Under the year 1142 Hélinand treats the “Abelard affair” and notes: “In his works I myself have found much that is reprehensible.”³² Moreover, in a sermon to the masters and students at Toulouse in 1229, Hélinand exclaimed, “Take note, that clerics in Paris seek the liberal arts; in Orleans, literature; in Bologna, books; in Salerno, medicine boxes; in Toledo, demons; and nowhere an upright life.”³³ This statement has been quoted to show the reputation of the various centres of learning in the early thirteenth century, with particular emphasis given to Orleans.³⁴ What has not received further comment is Hélinand’s statement that in Toledo clerics seek demons. What was going on in Toledo to elicit such a statement? The answer is easy enough: translations. Toledo was one of the main centres for the transmission of Greek and Arabic natural philosophy, including astronomical works, which became the basis in the west for astrological speculations, such as al-Farghani’s *De scientia astrorum* and Abu Ma’shar’s *Introductorium maius in astronomiam*.³⁵

²⁹ W. Wetherbee, *Platonism and Poetry in the Twelfth Century. The Literary Influence of the School of Chartres* (Princeton 1972) 105.

³⁰ Ibid. 107f.

³¹ E.R. Smits, “Helinand of Froidmont and the ‘School of Chartres’,” in: R. Työrinoja, A. Lehtinen, D. Follesdal (eds.), *Knowledge and the Sciences in Medieval Philosophy* (Helsinki 1990) 522-530.

³² *Chron.* 48: *Ego ipse in eis [sc. libris Abelardi] multa reprehensibilia inveni.* PL 212.1035.

³³ *Ecce quereunt clerici Parisius artes liberales, Aurelianus auctores, Bononiae codices, Salerni pyxides, Toleti daemones, et nusquam mores.* Sermo 15 PL 212.603B.

³⁴ M.A. Rouse and R.H. Rouse, *Authentic Witness. Approaches to Medieval Texts and Manuscripts* (Notre Dame 1991) 153.

³⁵ See D.C. Lindberg, “The Transmission of Greek and Arabic Learning to the West,” in: D.C. Lindberg (ed.), *Science in the Middle Ages* (Chicago 1978) 52-90.

Shortly after the influx of Arabic natural philosophy in the West, treatises began to appear defending the validity of astrology, such as the *Liber cursuum planetarum* of Raymond of Marseille and the *Libellus de efficatia artis astrologice* of Odo Campanus.³⁶ The latter work, as mentioned above, has been preserved only by its inclusion in book six of Hélinand's *Chronicon*, where the birth of Jacob and Esau offers the opportunity for a lengthy rebuttal of astrology in general and the ideas of Odo in particular. Simply put, astrology is the work of the devil: "the art of divination in the stars," Hélinand retorts, "is to be prohibited because it pertains to consultations and pacts with demons."³⁷ And this diabolical knowledge was flowing from Toledo, one of the centres of the learning of the schools.

Yet it is not the astrologers and astrology alone that come under attack. In the same sermon Hélinand lashes out against scholars who are more interested in gaining money and reputation than in seeking true knowledge.³⁸ The same sentiment is echoed in an undated sermon on Pentecost, the last in a series of three. Here Hélinand rebukes "those 'rosy' doctors...who are ever so quick to spout off and sufficiently prickly in disputation."³⁹ For there are "many today who have turned their backs on justice and sought erudition for the wrong reasons; they are wise, so that they can do evil, eloquent, to vilify the truth. These are the ones who turn the slippery

³⁶ See M.H. Malewicz, "Libellus de efficatia artis astrologiae. Traité astrologique d'Eudes de Champagne XII^e siècle," *Mediaevalia Philosophica Polonorum* 20 (1974) 1-95, which contains an edition of Odo's treatise from book six of Hélinand's *Chronicon*.

³⁷ *Iccirco ergo prohibita est ars divinandi in stellis, quia...pertinet ad consultationes et pacta quedam...cum demonibus...* Malewicz, *Libellus* (as in n.36) 83.13-15. Hélinand's attack against astrology could also provide the context for his careful attention to precise dating of biblical history seen throughout the *Chronicon*, as Valerie Flint has argued was the case for Honorius Augustodunensis; see V. Flint, "World History in the Early 12th Century: The *Imago Mundi* of Honorius Augustodunensis," in: R.H.C. Davis, J.M. Wallace-Hadrill, et al. (eds.), *The Writing of History in the Middle Ages. Essays Presented to R.W. Southern* (Oxford 1981) 211-238.

³⁸ See B.M. Kienzle, "Erudition at God's Service. Hélinand's Toulouse Sermons II," in: J.R. Sommerfeldt (ed.), *Erudition at God's Service* (Kalamazoo 1987) 279.

³⁹ *...rosei isti doctores...qui tamen et nimis ad loquendum promptuli sunt, et satis ad disputandum spinosuli...* PL 212.634B.

knowledge of civil and canon law into the handicraft of fishing and bird-catching; with their intricate nets they ensnare the poor, and bait the rich."⁴⁰ The problem, however, is not simply individuals: "Alas!, how rare is it today that virtue and knowledge are combined! I don't know by what bond of the new faction lusts and letters cling to each other. This society is no less prodigious than pernicious."⁴¹ This *societas*, this *nova factio*, consisting of the prickly disputations of "rosy" doctors and the deceitful gaming of the lawyers, can be none other, it seems to me, than the pursuit of knowledge in the new universities. It is precisely because the "scholastics" have separated virtue and knowledge that they have gone awry, for, Hélinand affirms, "even though there is much subtlety in the liberal disciplines, if it is not directed toward the love of God, it is completely worthless,"⁴² expressing thereby the fundamental principle of his own "school," the Cistercian Order.⁴³

Knowledge must be directed toward the love of God, and when it is not, it turns truth into diabolical deceit. It was the knowledge of truth directed toward the love of God that was the goal and purpose of study, and it was precisely the lack thereof that Hélinand saw in scholastic culture. Yet, he knew where it could be found. In a sermon on Psalm 84:12, *Veritas de terra orta est et iustitia de caelo prospexit*, Hélinand explains that in this land from which truth springs forth "are planted the Cistercians, who do homage to this great lord...those who die in our Order with a good conscience, receive this land as a fief, and are sent to possess it."⁴⁴ The Cister-

⁴⁰ *Sunt enim multi hodie deserti adversus justitiam, et eruditi pro falsitate: sapientes ut faciant mala; eloquentes, ut impugnent verum. Hi sunt, qui juris civilis et ecclesiastici captiosam scientiam in piscationis et aucupii artificium converterunt; quorum perplexis retibus pauperes illaqueant, et divites inescant.* PL 212.635B.

⁴¹ *Heu! quam raro hodie coeunt virtus et scientia? Nescio quo vinculo factionis novae libidines et litterae sibi cohaeserunt. Et haec non minus prodigiosa, quam pernicioza societas.* PL 212.633C.

⁴² *Sic etiam in liberalibus disciplinis subtilitas multa, et si non ad amorem Dei transferatur, utilitas nulla.* PL 212.633B.

⁴³ See M. Newman, *The Boundaries of Charity. Cistercian Culture and Ecclesiastical Reform, 1098-1180* (Stanford 1996).

⁴⁴ *In hac terra plantantur Cistercienses, qui magnae huic dominae faciunt homagium, et ejus servitutem perpetuam profitentur...Hanc autem terram in foedum accipiunt, et in ejus possessionem mittuntur, qui in nostro ordine cum bona consci-*

cians, not the schoolmen, Hélinand associates with truth. Adopting the role of *grammaticus* as the *custos historiae*,⁴⁵ Hélinand sought to present the truth of history in his *Chronicon*, not more, not less.

Yet when read in the historical context, it was not the worldly wisdom of the schools alone that formed the front against which Hélinand fought. Errors in doctrine abounded and particularly those concerned with the soul and its origin, as he indicates himself when he laments: "O, how many are there even today, who after death want either to return to nothingness, following Epicurus, or to come back as some draft animal, following the ideas of Plato or Pythagoras."⁴⁶ A more immediate threat of the doctrine of metempsychosis than that of the Platonists was present in Hélinand's immediate world, namely Catharism. The Cathars believed that the soul, after death, if not sufficiently purged, would return to the bodies of other humans or of animals.⁴⁷ Cistercian involvement with the Cathars can be dated to 1145, when St. Bernard went to Toulouse to preach against the heresy. Thirty-three years later a group of Cistercians, lead by Peter of Pavia and by Henry of Marsy, the abbot of Clairvaux, initiated a campaign against Catharism in the same region, and in 1204 Pope Innocent III commissioned the Cistercians to conduct a preaching mission against the Cathars in southern

entia defunguntur. PL 212.495D. Hélinand had earlier in the sermon defined truth: *Nam veritas cuiuslibet rei nihil aliud est quam aequalitas existentiae ejus, quam comprehendens animus intelligit rem sicut est...quisquis enim verum dicit, id solum, et totum dicit, quod in re est; nec plus, nec minus. Nam si plus vel minus diceret, non diceret verum, sed falsum; hoc enim diceret quod non esset de rei existentia, et ideo non de rei veritate.* PL 212.489D. He continued this passage by associating the truth with the *causa* and *forma* of being, which he then identified as God and God's Word; see PL 212.490A-D.

⁴⁵ See M. Irvine, *Textual Culture* (as in n.6) 172.

⁴⁶ *Chron.* 8.24: *O quanti sunt et hodie qui uellent post mortem aut reuerti in nichilum, secundum epicurum aut secundum platonem aut pitagoram in iumentum conuerti.* V 173b; cf.: *S'autres siecles n'est, donques viaus/ Ait ci li cors toz ses aviaus/ Et face quanque li delite:/ Vive li hom comme porciaus,/ Car toz pechiez est bons et biaux!/ S'en vertu n'a point de merite,/ Hé! que feront dont cil ermite/ Qui por Dieu ont lor char aflite/ Et beü tant amers jusiaus?/ S'après la mort est quite quite,/ Dont ont la pëur vie eslite/ Tuit cil de l'ordene de Cistiaus. Les Vers de la Mort XXXVI* (as in n.7) 33-34.

⁴⁷ See J. Duvernoy, *Le catharisme: la religion des cathares* (Toulouse 1976). See also Alan of Lille, *De fide catholica contra hereticos*, PL 210.316A-B.

France. Five years later the Albigensian Crusade was launched.⁴⁸ In 1211, Hélinand began work on his *Chronicon*. Hélinand was present in Toulouse in 1229, preaching three sermons there on the occasion of the founding of a new university to satisfy the stipulations of the Treaty of Paris between Philip II, and the count of Toulouse, which settled the long-standing Cathar conflict in the region, at least politically. One of his sermons in particular, as Beverly Kienzle has persuasively argued, was directed against the Cathars.⁴⁹ In book eight of the *Chronicon* Hélinand attacks the position that the human body was created either by an angel or by the devil; the former he attributes to Plato, and the latter to the Manichees,⁵⁰ which was also the teaching of the Cathars. Hélinand was as clear and forceful as one might wish regarding his view of the Cathars; the "Albigensian dogs" as he asserted in an undated sermon for Palm Sunday, "not only should be chased away with sticks and stones, as worthless stray dogs, but also should be pierced through with swords, as rabid dogs, or they should be burned with fire."⁵¹ In short, Hélinand composed his "digression" on the origin and destiny of souls during the height of the Cathar conflict, when the Cistercians were in the heat of combat against the heresy in southern France. In this light, book eight appears as far more than simply a compilation of texts dealing with the soul as a digression from the historical line; rather, it assumes the character of a textual arsenal.

Far more than a mere annalistic compilation, the *Chronicon*, I would submit, must be interpreted within the context of the Cistercian program in the early thirteenth century.⁵² It appears as a Cister-

⁴⁸ See M. Newman, *Boundaries* (as in n.43) 219-234.

⁴⁹ B.M. Kienzle, "Deed and Word: Helinand's Toulouse Sermons I," in J. Sommerfeldt, *Erudition* (as in n.38) 267-276; idem, "Erudition" (as in n.38); idem, "Cistercian Preaching Against the Cathars: Helinand's Unedited Sermon for Rogation," *Cîteaux* 3-4 (1988) 297-314.

⁵⁰ *Chron.* 8.9: *Non diabolus iuxta manicheum, non angelus iuxta Platonem, sed deus ipse iuxta sacre scripture ueritatem que dicit: Formauit igitur dominus deus hominem de limo terre* (Gen. 2:7). V 162b.

⁵¹ *Erubescant igitur canes Albigenses, qui contra ueritatem latrando, mentiuntur, eorum orationem nihil nobis prodesse; qui non solum tanquam canes improbi et importuni lapidibus et baculis abigendi sunt, sed etiam tanquam canes radibi confodiendi gladiis, uel ignibus comburendi.* Sermo 8 PL 212.549B.

⁵² J. Le Goff, "Pourquoi le XIII^e siècle a-t-il été plus particulièrement un siècle d'encyclopédisme?" in: M. Picone (ed.), *L'enciclopedia medievale* (Ravenna

cian text book of history, presenting all the historical material the educated Cistercian might need to interpret the scriptures in accordance with the catholic truth, and to act upon that truth in meditation and preaching. As such, it illustrates the polemical nature of encyclopaedic histories. In studying these works, we must be ever aware of the argumentation hidden within the compilation and organization.

Such historical literature, moreover, had a normative as well as a facilitative function, as Hélinand makes clear with his urgent attempts to explicate the texts containing fallacious opinions together with those carrying the orthodox line.⁵³ Throughout the *Chronicon* he is quick to assert when, where, and how a particular idea or position is to be avoided. In book three, chapter eight, for example, in response to the question of where the soul of Adam was created, Hélinand states that this is too difficult a question and is, in any case, not all that pertinent to the faith. Therefore, he concludes: "For it is equally foolish to assume those things that are not able to be known and to pass over those things that ought not to be ignored. Therefore, insofar as it is in keeping with the faith, we seek to know, and those matters that curiosity alone entices us to peep into, we refrain from investigating."⁵⁴ In his text Hélinand not only compiles knowledge that should be known, but warns his readers of what should be avoided. The encyclopaedic knowledge con-

1994) 23-40, at 24: "En effet, dans la typologie des ouvrages encyclopédiques—que je n'ai pas osé entreprendre et qu'il a présentée de façon extrêmement intéressante—I'une des trois sortes d'ouvrages encyclopédiques est définie comme 'encyclopédie programmatique': il est vrai que cette notion de programme est plus forte dans certains ouvrages encyclopédiques, mais cela existe plus ou moins dans toute oeuvre encyclopédiques."

⁵³ Hélinand explicitly stated his reasoning in this regard in book eight: *Hec iccirco diximus ut appareat philosophis nec semper esse credendum nec semper discredendum, quia etiam de ueritate firmissima, rationes infirmissimas inducunt, et plerumque falsitatem rationibus fortissimis probare uidentur. Chron. 8.55. V 190a.*

⁵⁴ *Chron. 3.8: Equalis enim stulticie est presumere in his que non possunt sciri et deficere in his que non debent ignorari. Igitur quantum sane fidei satis est, queramus agnosere et ea que curiositas sola scrutari suadet, desistamus inuestigare. V 34b; cf. Chron. 3.61: Et hoc a nobis fide credendum est, non curiositate inquirendum. V 41a; see also H.A. Oberman, Contra vanam curiositatem. Ein Kapitel der Theologie zwischen Seelenwinkel und Weltall (Zürich 1974) 23.*

tained in the *Chronicon* is didactic and normative, designed to enforce the intellectual moral order of that social system that stood opposed to the divorce of knowledge from the love of God found in the schools. The *Chronicon* not only offers us a window onto the intellectual and religious environment of the early thirteenth century, but also serves to reveal the extent to which the power structures of encyclopaedic literature set the limits for the pursuit of knowledge.

PUBLIC KNOWLEDGE AT PRIVATE PARTIES:
VIVES, JONSON, AND THE CIRCULATION OF THE
CIRCLE OF KNOWLEDGE*

WILLIAM N. WEST

The word *encyclopaedia* was new in the fifteenth century, although the Renaissance philologists who invented it believed that they were following the usage of Pliny and Quintilian. For humanists like Angelo Poliziano, the encyclopaedia was not only an organising system of the liberal arts and the professions, but a particular discipline that contained all that the other arts left out:

the practice of life, the examples of our ancestors, the knowledge of contemporaries makes one who is called in Greek *polyhistor*, as if it were “knower of many things”: to us, let him be called by a truer title, simply *prudent*, and his studies *prudence*¹

—in short, the ethical and political skills of the good life. But the encyclopaedic virtue that the Spanish humanist Juan Luis Vives here identifies as *prudence* includes a great deal of trivial data,

which are all [part] of the encyclopaedia, on which Pliny, Athenaeus, Aelianus, Macrobius have touched piecemeal; but old men in their

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¹ Ioannes Lodovicus Vives, *De disciplinis* (Cologne 1536) II.i.253: *Usus vitae, exempla maiorum, cognitio praesentium facit eum, qui Graes voce polyhistor dicitur, quasi multiscius: nobis sit sanè honestiore nuncupatione prudens: & eius tractatis prudentia*. For Poliziano and the origins of the word, see Jürgen Henningsen, “‘Enzyklopädie’: zur Sprach- und Bedeutungsgeschichte eines pädagogischen Begriffs,” *Archiv für Begriffsgeschichte* 10 (1966) 276-84; on humanism and the encyclopaedia more generally, see Neil Kenny, *The Palace of Secrets: Beroalde de Verville and Renaissance Conceptions of Knowledge* (Oxford 1991) and A.H.T. Levi, “Ethics and the Encyclopedia in the Sixteenth Century,” in: Peter Sharat, *French Renaissance Studies, 1540-1570: Humanism and the Encyclopedia* (Edinburgh 1976).

groups and clubs discuss these topics better, as Cicero says, than the most learned men in their academies, which Pliny bemoans in his preface.²

For Vives, the contents of the encyclopaedia resist exposition in standard academic genres; they develop in the less formal, more social exchanges of old men in clubs rather than those of scholars in academies. The encyclopaedia thus does not entirely fit the bookish culture of the humanists. It is an idea rather than an object, not a fixed or fixable text but an ideal of ethical conversation and practice. Knowledge of the encyclopaedia was better sought in practical, publicly-oriented life rather than in the hair-splitting of the schools. To many Renaissance humanists, the *convivium* looked not only like a ludic alternative to tedious scholastic pedagogy, but an epistemological solution to the problems of triviality, superficiality, and excess that had haunted encyclopaedic discourse in the West at least since Martianus Capella's Liberal Arts.

Vives uses as an example of this better form of knowing Carolus Virulus of Louvain, a schoolteacher and "a man not so well-read as good, though neither natural gifts nor diligence were lacking to him, but only time and place."³ In order to maximise his opportunities for learning new things, Virulus would invite guests with skill in various trades to dinner parties. Before dinner, Virulus would select a topic of conversation upon which his guest was expert, and learn just enough about it to be able to ask some elementary questions. During dinner, then, after prompting his guest, Virulus "would hear in a very short period what he could scarcely have acquired through practice in many years; and thus he would learn from the conversation, and the dinner was more cheerful and the diner more prudent and more accomplished..."⁴

Vives is careful to point out that Virulus is neither particularly well-read, nor practically skilled. At his dinners, Virulus does not relearn knowledge already safely gathered in books, but acquires a

² Vives, *De disciplinis* (as in n.1) II.iv.359: *Quae sunt omnia της εγκυκλοποιδειας: de quibus carptim attigere Plinius, Athenaeus, Aelianus, Macrobius, meliusque dissererunt de his senes in circulis suis, & exhedris, sicut Cicero inquit, quam homines eruditissimi in gymnasiis, quod Plinius in praefatione sua conqueritur.*

³ Vives, *De disciplinis* (as in n.1) II.iv.360.

⁴ Vives, *De disciplinis* (as in n.1) II.iv.360.

more haphazard, more comprehensive kind that comes from the normal interaction of normally learned individuals as they talk around the dinner table.⁵ There is nothing exceptional about Virulus, his methods, or his interlocutors—except his results. What Virulus learns from his dinner companions is converted by a kind of epistemological alchemy from the particular knowledges of individual fields into universal *prudentia*, not the knowledge of particular things, but of all things pertaining to human activity. For Vives, language gained its meaning from its employment in human affairs.⁶ Like many other humanists, he believed that he studied not an unchanging relation between words and things, but that of language to prior acts of language. The table-talk staged by Virulus was not, then, mere talk; it was an active investigation into the way particular individuals assigned meanings to things and came to consensus on terms and values.

Virulus shows scant interest in acquiring the technical skills of his dinner companions. What makes his knowledge unique and valuable is its pure discursiveness. The dinner companions' conversion of their experiences into language distils their years of practice into a few hours at the dinner table, and so lets Virulus gather in an evening knowledge it would otherwise take a lifetime to gain. Virulus' encyclopaedic learning is not accidental. His ability to consolidate the many partial and particular languages of his dinner partners is what constitutes his extraordinary *prudentia*. For Vives and Virulus, the wise man is no longer the solitary scholar, but the convivial sharer of knowledge. The locus of knowledge changes from the library, where knowledge is stored, to the dinner table, where it is taken from its place of storage in memory and deployed in conversation.

Prudence, this suggests, cannot be gained through the programmatic study of texts. If Virulus had merely read an encyclopaedic text, his knowledge would be contained in that text, and he

⁵ Martin Elsky, *Authorizing Words: Speech, Writing, and Print in the English Renaissance* (Ithaca, NY 1989) 36–47, on Vives' interest in ordinary rather than specialised language as authoritative.

⁶ My reading of Vives draws on the overview of his position given in Elsky, *Authorizing Words* (as in n.5) 36–47, and the detailed treatment of Richard Waswo, *Language and Meaning in the Renaissance* (Princeton 1987).

would only serve as its reflection; if he had been a researcher, his learning would still exist materially in a library. Instead, Virulus becomes the sole locus in which his guests' particular knowledges are combined, providing a unique place for a comprehensive knowledge where before there was none. He is himself a kind of encyclopaedia, a human container of knowledge that is gathered and shared through discussion. This conception of the encyclopaedia places it in a self that activates its knowledge rather than in a text that preserves it, which we can perhaps label as a *prudential* or *ethical* encyclopaedia.

It is possible for the prudence of an encyclopaedic self to be represented in a text, but never completely. Certainly for Vives one must read widely in all sorts of texts, because only through texts can one hope to get a sufficient breadth of experience, or any experience at all of the ancient world or far-off places: "Everything is to be learned from books, for without books, who could hope to be able to follow the knowledge of great things?"⁷ Polyhistory, though, is not the content of a book holding all knowledge, but the quality of a person who can master and order it within him or herself, then reproduce it bit by bit in the course of a conversation. This is why the place of the encyclopaedia is the dinner table and not the library, and why it develops in conversation and not from set expositions. The encyclopaedia envisioned by Vives and apparently realised by Virulus is a communal work, not only because the circulation of particular knowledges defines a community, but because knowledge is also the product of shared intellectual activity within that community. The circle of diners is both an effect and a representation of the circle of knowledge that holds it together.

Virulus is part of a long line of knowledgeable feasters who use their dinnertimes to uncover, sometimes indiscriminately, central and nugatory truths about the world. Plato's symposium is perhaps the original model, but Vives mentions three other encyclopaedic diners: Pliny the Elder, who never dined without having some improving text read to him,⁸ and Athenaeus and Macrobius, whose recorded dinner conversations touched on virtually every topic. This image of the banquet of knowledge became especially impor-

⁷ Vives, *De disciplinis* (as in n.1) II.i.253.

⁸ Pliny the Younger, *Letters* III.5.

tant during the Renaissance. Francis Bacon's chaplain William Rawley makes his patron a modern Macrobius or Athenaeus, with dinners "like the *Noctes Atticae*, or *Conviviae Deipnosophistarum*." The sayings of John Selden, whom Ben Jonson praises for his encyclopaedic "circle... / Of generall knowledge," were collected and published posthumously as *Table-Talk* (1689), which the editor proudly claimed to have "methodized" by ordering the shapeless mass of Selden's wisdom into a Ramist encyclopaedia. The feast as the place where minds meet and knowledge is made whole is a motif in Jonson's own works, for instance his poem "Inviting a Friend to Supper," or the feasts that end *The Alchemist* and *Bartholomew Fair*.⁹ For Jonson, as for Vives, dinner and the conversation that attends it provide a sense of community that is often lacking in society at large. The idea of the feast as encyclopaedia in Jonson's work is presented explicitly by Lickfinger, the cook in *The Staple of News* (1626):

Seduced Poet, I doe say to thee,
A Boyler, Range, and Dresser were the *Fountaines*,
Of all the knowledge in the *universe*.

...

[The *Master-Cooke*] has *Nature* in a pot, 'bove all the *Chymists*,
Or airy brethren of the *Rosie-crosse*.
He is an *Architect*, an *Inginer*,
A *Souldiour*, a *Physician*, a *Philosopher*,
A generall *Mathematician*. (IV.2.11-37)

Lickfinger's enthusiastic praise of cooking as an architectonic art leans towards parody, but absurd though his encomium seems, he is more learned than the poetaster whom he is here instructing.

Vives' revision of the encyclopaedic model and Jonson's placement of it, however ironically, in a cook, seem to democratise the pursuit of knowledge. The location of the encyclopaedia is one's fellow men, readily available (even unavoidable!) to an ordinary man with ordinary resources rather than confined to those with special training or natural gifts. Paradoxically, though, the result of

⁹ Jonathan Haynes, *The Social Relations of Jonson's Theater* (Cambridge 1992) 47-51, acutely distinguishes Jonson's private party from a Bakhtinian public riot; he also discusses the fantasy of communal feasting restoring a lost social order, 129-35. Jonas Barish, "Feasting and Judging in Jonsonian Comedy" *Renaissance Drama* n.s. 5 (1972) 3-35, provides several examples.

this increased availability of the sources of encyclopaedic knowledge—in men rather than in books—can make it more elusive to those who desire it. One problem with the transmission of this encyclopaedia is that, despite its reliance on a community of knowers, it is always manifested in individuals—a Virulus, for instance. The promise of community that an encyclopaedia makes therefore always partly excludes its audience: even Vives sees Virulus' dinner table from the outside, and cannot reproduce what Virulus knows. Whereas earlier encyclopaedias were texts meant to *display* recondite knowledge, the ethical encyclopaedic self necessarily conceals it, or at least holds some in reserve. Knowledge in conversation, especially as Vives envisions it, is always only partial; we credit encyclopaedic knowledge to certain individuals, but cannot expect them to reveal it to us whole. As Jonson observes, real learning recognises the importance of timeliness, "[f]or we see not all letters in single words, nor all places in particular discourses. That cause seldom happens, wherein a man will use all his arguments" (*Timber* 102-4). The ethical encyclopaedia contains knowledge whole, but produces it in fragments suited to the immediate context.

Both food and learning are in fact hard to come by at Jonson's gatherings. The feasts at the conclusions of *The Alchemist* and *Bartholomew Fair* take place offstage, and the supper to which the friend is invited remains an unrealised fantasy of community. Lickfinger's cuisine, while spectacular, is not demiurgic like the cooking he describes. The elusiveness of dinner and the encyclopaedic table-talk that accompanies it is not confined to Jonson's works. When attempts are made to list the encyclopaedia's contents, the results are often disappointing. Vives wisely avoids detailed descriptions of encyclopaedic knowledge in favour of more anecdotal accounts like his story of Virulus. When Vives does describe the information contained in the encyclopaedia, it sounds as laughable as Lickfinger's. After examining Vitruvius' architect as an encyclopaedist, Vives' imagined encyclopaedist proceeds to acquire a thorough knowledge of

conveyance, in which category is the horse, the mule, the ox, and every sort of vehicle, within which definition is navigation and even hauling; let him investigate for what reason and in what way all these

were discovered, sought, improved, preserved, applied to our use and benefit. Now the things kept in store for the entertainment of all the senses, what is society in a private house, of a husband, of a wife, of children, of relatives, of neighbours, of contemporaries, of servants; what it is in the public state; what has been thought out and discovered about it by human ingenuity, [and] what made up through stupidity in name and opinion but without any basis at all in fact. These are all [part] of the encyclopaedia...¹⁰

This passage can be understood either as a straightforward account of a small part of necessary knowledge or as an ironic parody of those who turn from the great texts of antiquity to study antiquity's material minutia. When Vives concludes that "old men in their groups and clubs discuss these topics better... than the most learned men in their academies," his placement of "better" (*melius*; see n.2) allows the sentence to be read alternatively as, "it is better for old men to discuss these things... than learned men...." Vives thus leaves it undecided whether the old men know more of prudence than scholars because of the sterility of scholastic discourse, or because the trivial matters that make up the encyclopaedia are best left to garrulous old men. Displaying the goods of the encyclopaedia is less impressive than concealing them and talking around them; the dinners of Virulus do not lapse into the pedantry of those described by Macrobius partly because we never see their contents but only hear of them at second hand. To speak cynically, the imagined dinner is always better than the one we attend.

Jonson's ideal of an encyclopaedic dinner partner is someone like John Selden, who may be the friend invited to supper in Jonson's poem of that name.¹¹ In Jonson's verse epistle to him, Selden

¹⁰ Vives, *De disciplinis* (as in n.1) II.iv.359: *Hinc quae ad convehendum, in quo est equus, mulus, bos & omne genus vehiculi, cui navigatio est finitione, nempe etiam vectio: haec omnia persequetur qua ratione ac modo sint inventa, quaesita, aucta, conservata, applicata usui, & emolumentis nostris. Iam quae ad oblectamenta sunt per sensus omnes reperta, quae sit societas domi privata viri, uxoris, liberorum, consanguineorum, affinium, asseclarum, servorum, quae in civitate publica, quae ad eam per hominum ingenia excogitata, & inventa, quae per stultitiam conficta nomine atque opinione sine re omnino ulla. Quae sunt omnia της εγκυκλοπαιδειας: ..."*

¹¹ Edward Partridge, "Jonson's Epigrammes: the Named and the Nameless," *Studies in the Literary Imagination* 6 (1973) 164; Joseph Loewenstein, "The Jonsonian Corpulence, or The Poet as Mouthpiece," *English Literary History* 53

combines the encyclopaedic qualities of centredness and capacity:

Stand forth my object, then, you that have been
 Ever at home: yet have all countries seen:
 And like a compass keeping one foot still
 Upon your centre, do your circle fill
 Of general knowledge;... (*Underwoods* XIV.29-33)

The last two lines make clear that part of Selden's greatness is a literal encyclopaedism; the rendering of *enkuklios paideia* as "circle... / Of general knowledge" translates both the literal sense of *enkuklios* as "circular" and its figurative one of "general." Dialectically—and encyclopaedically—balancing a centred meaning for all phenomena and the dazzling manifold of worldly details, Selden has "all countries seen" while remaining "[e]ver at home." This ability to maintain a still centre in the midst of the changing world, here linked explicitly to an ethical encyclopaedism, is the highest praise that Jonson can offer.¹² Appropriately, Selden is compared to a compass—not himself a perfect circle, but an instrument that creates one.

The poem begins with the poet's assurance that "I know to whom I write," Jonson's guarantee not only that he understands Selden, but that Selden will understand the poem. Jonson's evidence, though, is that he has erred in earlier poems of praise, so that he is now more careful when he writes:

Since being deceived, I turn a sharper eye
 Upon myself, and ask to whom, and why,
 And what I write? And vex it many days
 Before men get a verse: much less praise;
 So that my reader is assured, I now
 Mean what I speak:... (23-28)

This makes the issue not the existence of general knowledge in Selden, but its visibility in him or any person. Jonson must examine *himself* to know the honesty of his praise, let alone its accuracy. The poem displays his struggle to manage his praise of Selden, and

(1986) 491-518, offers an astute reading of this poem.

¹² Numerous critics have remarked on Jonson's interest in centredness, although never in the context of encyclopaedic writing; the most influential is Thomas M. Greene, "Ben Jonson and the Centered Self," reprinted in: Harold Bloom, *Ben Jonson: Modern Critical Views* (New York 1987) 89-110.

the final proof of Selden's worth is that in the end, cautious though he is, Jonson cannot. Selden's limitless knowledge demands similar exorbitance:

I yield, I yield, the matter of your praise
Flows in upon me, and I cannot raise
A bank against it. Nothing but the round
Large clasp of nature, such a wit can bound. (61-64)

Inevitably, though, Jonson errs again; Selden's "circle... / Of general knowledge" exceeds Jonson's capacity to list it, and his poem cannot contain Selden's wit any more than it can keep it out. Selden's circle of knowledge cannot be held in language, but only in the circular world itself, the "round / Large clasp of nature." Jonson can only assure the reader that Selden's knowledge exists, invisibly, in Selden; it cannot be displayed.

The encyclopaedia, then, is not circulated here, only gestured towards, and the reader is left with the frustrating knowledge that he does not *have* knowledge, nor does Jonson, and that while Jonson at least *knows* knowledge when he sees it, he cannot tell the reader how to do even that. If the encyclopaedia is no longer a text, but rather a person who contains knowledge, it will necessarily remain somewhat mysterious to outsiders. Any actual, as opposed to hypothetical, enumeration of Selden's virtues or knowledges would be misleading. Selden contains more than the sum of his parts, just as *prudentia* in Virulus is more than the absorption of the dinner conversations he arranges, or the encyclopaedia Vives names is more interesting than the vehicles he lists as an example of it. In order to show Selden's encyclopaedic content, Jonson must paradoxically avoid displaying it.

In place of showing complete knowledge to the viewer, Jonson substitutes a *desire* for completeness. He begins with the recognition that he erred in his praise before because he praised "with purpose to have made [the recipients] such" as he described them, rather than representing them as they were. Selden, though, remains just as much a projection of Jonson's desires as those Jonson wrongly praised. Jonson's argument is just as likely to cast doubts on his current praise of Selden as it is to assure the reader that Jonson has learned from his mistakes. The paucity of Jonson's information about Selden's knowledge coupled with his insistence on its

magnitude suggest that the sudden manifestation of Selden as the embodiment of the encyclopaedia is a wish-fulfilment, as Jonson turns inexpressible absence of knowledge into equally inexpressible overflow.¹³

The result of this abundance is a net loss. Jonson's poem does not put him into a community with Selden, it only lets him realise how far he is from Selden and encyclopaedic fullness. Initially Jonson could assert that "I know to whom I write," but by the end of the poem Selden's real understander is his "learnéd chamber fellow" Edward Heyward, who

will not only love,
Embrace, and cherish; but he can approve
And estimate thy pains, as having wrought
In the same mines of knowledge; (74-77)

Jonson's knowledge locates another knower of Selden who stands yet closer to him than Jonson. Jonson tries to recover a sense of community with Selden and this newcomer by claiming knowledge of Heyward as well, and he assures the reader that he can praise this pair. But he demurs again in the final line, asserting only his own likeness to them: "You are both modest. So am I. Farewell." To recognise encyclopaedic knowledge, apparently, requires encyclopaedic knowledge and offers no help to one who might be seeking it—when Jonson likens himself to Selden and Heyward, he in effect closes the door on the reader. The ridiculousness of what Vives or Jonson call encyclopaedism when it is listed in detail does not discredit the ideal or stem the desire for it, it only ensures that it must remain absent. Present, it appears silly or trivial, the detritus of scholarship; we only desire encyclopaedic knowledge when it remains another's share, fragments that appear across the table or in the text, hints at a wholeness of learning that will never be fully manifested.¹⁴ What Jonson's epistle to Selden shows is how desperately we *want* there to be an encyclopaedia, a locus of true and

¹³ I am indebted to Stanley Fish's reading of this poem, "Authors-Readers: Jonson's Community of the Same," *Representations* 7 (1984) 26-58.

¹⁴ See Richard C. Newton, "'Ben./ Jonson': The Poet in the Poems," in: *Two Renaissance Mythmakers: Christopher Marlowe and Ben Jonson: Selected Papers from the English Institute, 1975-76* (Baltimore 1977) 191-93, on the melancholy of this loss.

whole knowledge, even if it remains necessarily inaccessible to us.

This representation of completeness as a subjective loss is the reason Selden first appears in Jonson's poem as a compass, circular, complete, and centred, but also why Jonson chose a broken compass as his personal emblem. Jonson's motto was *Deest quod duceret orbem*—"That which draws the circle (or "leads the world") is missing." But Jonson could almost have said *Quod deest duceret orbem*—"that which is missing leads the world." When something is missing, it provides an impetus to fill out its place, as a fragment implies its completion; yearning posits the missing leg of Jonson's emblem as Jonson posits Selden's knowledge and as Selden's knowledge requires its mirror reflection in the knowledge of a Heyward. The perfection promised by the ideal of the encyclopaedic self, and the sense of community that would both nurture that knowledge and be formed by it, dissolves in Jonson. For both Vives and Jonson, the incompleteness of their project and the melancholy of an ethical encyclopaedia that will never be realised is what draws them on. A broken compass, or a missed dinner party, is the only kind that works, and we will never have all of the encyclopaedia.

CENSORING ENCYCLOPAEDIC KNOWLEDGE: THE CASE OF SAHAGÚN AND SIXTEENTH-CENTURY SPANISH AMERICA

VINCENT C. RENSTROM

With the conquest by Hernán Cortés (1485-1547) of the great Mexica stronghold at Tenochtitlan in the early 1520s came new questions about the legitimacy of the war waged by the Spaniards against the native Americans.¹ Doubt began to creep into the minds of some who had taken for granted the necessity of subjugating the Antilles natives and Vespucci's so-called Tierra Firme "cannibals." It seems that the early Spanish occupation of Mesoamerica did little to convince the conquerors that the natives found there were not the typical medieval "wild men" so closely associated with the Amerindians encountered on the Caribbean islands and along the coasts. No one appears to have considered the possibility of a native American "civilisation." The Mexica presented an advanced culture with a highly-organised social structure and established systems of commerce, politics, and religion. Nevertheless, once the Aztec empire had been conquered by the Spanish, official emphasis was placed on the religious conversion of the natives, not on the recuperation of the subjugated civilisation.

Among the many Mexica cultural treasures destroyed and supplanted by the Spanish was an undisputed literary tradition in the form of painted screenfold books. These books contained knowledge, in pictographic style, to unlock the secrets of a culture utterly different from the European, but to the Christian mindset of the conquering Spaniard, the books were seen as pagan artefacts and as such they were burned in great numbers, whole libraries converted into bonfires. The obliteration of this corpus of Aztec literature was so complete that today only about 20 truly pre-Cortesian screenfold books survive. Notwithstanding this crushing setback, the literary

¹ I will refer to the occupants of Tenochtitlan and its environs as Mexica, for that is how they referred to themselves. I. Clendinnen, *Aztecs: An Interpretation* (New York 1991) 1. The adjective "Aztec" will be used to describe the area which the Mexica dominated and from whose non-Mexica inhabitants they exacted tribute.

tradition in Mesoamerica did not die out, as the scribes continued to work throughout the early decades of the colonial period; consequently, scholars today are able to draw on several hundred pictographic texts painted in the native tradition, which provide an Amerindian viewpoint on many aspects of the history and culture of the pre- and post-conquest Aztec world.²

In 1529 the Franciscan friar Bernardino de Sahagún (1499-1590) travelled from Castile to the recently-conquered area that would become the viceroyalty of New Spain (est. 1535) to begin a lifelong mission among the peoples of the Valley of Mexico. Sahagún, like the missionaries who had preceded him in the area, felt that indoctrination into the Christian faith could be carried out most efficiently if the clergy were able to preach and instruct in the language of the converts. To this end, Sahagún set about acquiring a thorough knowledge not only of the language (Nahuatl) but also the religious practices, the social customs, the economic system, and the history of the pre-Contact Mexica. The result of his exhaustive investigative efforts during a 60-year career as a missionary have come down to us in a 12-book bilingual Nahuatl/Spanish illustrated work known as the *Historia general de las cosas de Nueva España* (*General History of the Things of New Spain*) or the Florentine Codex.³ The present study examines the case of Sahagún's Nahua "encyclopaedia," unpublished until the nineteenth century, in light of two other New World encyclopaedic texts (by Fernández de Oviedo and by Acosta) produced—and published—in sixteenth-century Spain. The course of the sixteenth century witnessed an increased intrusion by the Royal Censor in the production of texts written in native American languages or in Spanish about the indigenous cultures. An outpouring of sometimes contradictory leg-

² G. Brotherston, *Painted Books of Mexico* (London 1995) 11.

³ The only complete version of this manuscript, believed to have been copied in 1578-79, is housed at the Biblioteca Medicea-Laurenziana in Florence, Italy. A facsimile of it has been published: B. de Sahagún, *Códice Florentino* (Florence 1979). An English translation of the text is: B. de Sahagún, *Florentine Codex: General History of the Things of New Spain* (Santa Fe and Salt Lake City 1950-82). For full details on Sahagún's creative process that resulted in the Florentine Codex see: L.N. D'Oliver and H.F. Cline, "Bernardino de Sahagún, 1499-1590. Sahagún and his Works," in: *Handbook of Middle American Indians* (Austin 1964-76) 13.186-207.

isolation from the second half of the century documents the confusion in the Council of the Indies, and at the royal court, regarding Spain's American policy and the importance to be placed on preserving the native cultures. As will be seen, Sahagún's *General History* comes closer than any sixteenth-century text to capturing in encyclopaedic form the essence of (at least one area of) American society as it existed before the European invasion. Sahagún fell victim to the paranoid reckonings of the Spanish lawmakers, whereas Fernández de Oviedo wrote before the censorial crack-down, and Acosta, writing toward the end of the century, used discursive trickery to evade the censor. Unfortunately, the wealth of ethnographic knowledge accumulated by Sahagún was deemed unworthy of publication by a Spanish government whose American subjects were proving more and more difficult to control.

The first of Spain's encyclopaedic undertakings to incorporate America was Gonzalo Fernández de Oviedo's 1535 *Historia general y natural de las Indias*, which was an elaboration of an earlier draft produced at the behest of Charles V, and which was later to double in size as Oviedo (1478-1557), privy to government documents due to his position as Royal Chronicler of the Indies (1532-1556), continued to revise the work after its initial publication. Oviedo showed a scholarly interest in New World flora, fauna and customs, and his work contains some ethnographically valuable illustrations. However, his overt anti-Amerindian attitude disturbed all those contemporary Spaniards who, like the famous "Defender of the Indians," Bartolomé de Las Casas (1484-1566), advocated a policy that favoured the welfare of native Americans. While Las Casas and his followers saw Oviedo as an exploiter, the royal chronicler enjoyed a position of prestige in the Indies. He saw himself as a crucial link between the fledgling American colonies and their king.⁴ Oviedo knew that his discourse would go far toward determining the nature of the legislation passed in the Spanish court. He felt that it was in his own and his fellow countrymen's best interest to maintain the pattern of subjugation of the natives, so

⁴ K. Myers, "The Representation of New World Phenomena: Visual Epistemology and Gonzalo Fernández de Oviedo's Illustrations," in: *Early Images of the Americas. Transfer and Invention* (Tucson and London 1993) 184-85.

much so that Oviedo's *Historia* has been called "a work which was to provide most of the members of the anti-Indian faction with their ammunition for years to come."⁵

By the 1550s, supporters of a feudal economy based on slave labour in America (the *encomienda* system) had grown intolerant of Las Casas and his pro-native-American ideology. However, the Spanish crown sided with Las Casas and the Amerindian sympathisers in passing its American legislation, unfortunately for the ruling class in America. The Crown felt threatened by the increasing autonomy of the Spanish settlers abroad and Spanish courtrooms were becoming inundated with American property claims cases brought by the conquerors and their heirs. Consequently, a change in official policy came about. This change is reflected in the fact that Francisco López de Gómara (1511-c.1560), enlisted in Spain by Cortés to write the latter's biography, published it in 1552 under the title *Historia general de las Indias y la conquista de México*. Just one year later, by royal decree, this text was "ordered withdrawn from circulation and prohibited from further printings."⁶ This 1553 suppression of Gómara's text was an early example of the increasing role of the Spanish censor in the publication of documents pertaining to America during the second half of the sixteenth century. The Crown's fear of the autonomy of the conquerors and their heirs is further epitomised by the fact that, around this same time, Bartolomé de Las Casas was allowed to publish his *Brevísima relación de la destrucción de las Indias* (1552). The royal authorities may have thought that this work by Las Casas would serve well to remind the conquerors of the atrocities they had committed, and thus inhibit them in their quest for material compensation. Lacking foresight, or underestimating the far-reaching impact of a print medium still in its infantile stages, those who approved this work for publication soon regretted it, for the *Brevísima* has been credited with almost single-handedly disseminating the so-called "Black Legend" surrounding the Spanish conquest of America. This condemnation of the conquering techniques

⁵ A. Pagden, *Spanish Imperialism and the Political Imagination* (New Haven and London 1990) 58.

⁶ R. Adorno, "Discourses on Colonialism: Bernal Díaz, Las Casas, and the Twentieth Century Reader," *MLN* 103:2 (1988) 240-42.

of the Spaniards quickly spread around Europe lending more support to the cause of the underdog Amerindians.

Las Casas' "handbook of destruction" was no doubt a key factor in the Spanish crown's decision to keep a tighter rein on all publications containing subject matter about America. The release of the Las Casas work, coming as it did toward the end of the reign of Charles V and relatively early in the Counter Reformation period, seems to reflect "una tolerancia, aunque limitada," in the earliest stages of official censorship.⁷ As of 1556, however, anyone in Spain or its colonies who sought to publish a book on America had to obtain permission from the Council of the Indies.

By a royal decree dated September 21, 1556...the printing of books dealing with America is expressly prohibited without a special license granted by the Council, and all those already in circulation are ordered to be gathered and sent to the Council.⁸

The tenor of this decree exemplifies the place of America in the policies of a Catholic Spain ever threatened by heresy from the Moor, the morisco, the Jew, the converso, the Protestant Reformation, and now from the idolatrous native of America and his sympathisers.

During the reign of Philip II (1556-1598), very few texts on the subject of America were allowed to be published. The Council of the Indies, not the Inquisition, was in charge of all writings pertaining to the New World and it, headed by the Royal Chronicler of the Indies (the post first filled by Fernández de Oviedo), kept a vigilant watch over what did and did not come into print. In fact, until well into the seventeenth century, with very few exceptions, the only books on America published in Spain or its American colonies were compiled from an extensive library of manuscripts by the Royal Chronicler. A royal decree of 1572, sent to the Crown's representatives in America, requested that any and all histories written about their particular area of jurisdiction be sent to the Council of the Indies. This move was not a request for submissions for publication, but rather a tactic to increase the holdings of the archives of the Council and to control discursive production in

⁷ J. Friede, "La censura española del siglo XVI y los libros de historia de América," *Revista de Historia de América* 47 (1959) 48.

⁸ Friede, *La censura española* (as in n.7) 48 (my translation).

America. Around 1574, Juan López de Velasco (Royal Chronicler of the Indies from 1571 to 1591), with a mass of texts about America (including manuscripts by Las Casas and others) at his disposal, put together his *Geografía y descripción universal de las Indias*, "a brilliantly succinct and lucid synthesis of the existing information on the geography, the natural phenomena and the peoples of the Indies."⁹ Even this document, however, did not receive approval for publication because "the king ordered that all eight original manuscripts of the *Geografía* be safeguarded....so that the information they contained be utilised only in the Council."¹⁰ The compilation of official histories having to do with America was thus left to the Royal Chronicler of the Indies, and even then, as in the case of López de Velasco, the results of one writer's years of research and hard work came to be restricted to the eyes of a very few privileged individuals.

The early missionaries in the Valley of Mexico, as well as those who had already been preaching on the Caribbean islands, thought, as did most Spaniards, that the natives had been living in "a time of idolatry and error from which the providential arrival of the Spaniards had rescued them."¹¹ In Mesoamerica, the overriding attitude among the first generation of clergymen, faced with the grandeur of an alien culture still intact in spite of the damage inflicted upon it by the Spanish invasion, was one of tolerance toward the language and customs of the pagans. The missionaries' goal was to preach to these newcomers-to-the-faith in their own language. By learning about Amerindian customs and breaking down the linguistic barrier, they became better acquainted with the civilisation upon which Spain had imposed itself, which, in turn, facilitated the transplanting of certain aspects of Spanish culture (religious, technological, governmental, etc.) into the area.

Prior to Bernardino de Sahagún, two other Franciscan friars (Toribio de Benavente, or Motolinía, and Andrés de Olmos) had

⁹ J.H. Elliott, *The Old World and the New, 1492-1650* (Cambridge 1970) 38.

¹⁰ Friede, *La censura española* (as in n.7) 60 (my translation).

¹¹ J. Franco, *An Introduction to Spanish-American Literature* (London 1969) 13-14.

begun to compile ethnographic material on the Mexica.¹² Without doubt, however, the most thorough of the ethnographic studies undertaken by the earliest generation of clergy in New Spain was that of Sahagún. Sahagún's *General History* started as a massive three-part project that would consist of, first, "a Mexican encyclopaedia for training of missionaries,"¹³ second, Nahuatl versions of sacred texts and sermons, and third, translations into Nahuatl of prayers and hymns, the latter adapted to the existing native musical tradition. The *General History* includes only the first part of this project.

Sahagún's method of gathering data differed from that of his predecessors, Olmos and Motolinía, in that the first draft of his work was written in Nahuatl using Latin script by a group of scribes who recorded information related to them by elderly native informants. These informants, when necessary, interpreted pictographic documents salvaged from the conquest, or reproduced after the conquest, in order to answer the questions put to them by Sahagún. Sahagún conducted this type of "roundtable consensus" research three times in three different Mexica communities (Tepepulco, 1559-61; Tlatelolco, 1561-65; and Mexico-Tenochtitlan, late 1560s) as a way of crosschecking and verifying his results. Although he was most interested in the religious aspects of Aztec civilisation, or its moral history, the *General History* contains also political and natural history. It is believed that Sahagún fashioned his *General History* after Bartholomaeus Anglicus' *De proprietatibus rerum*, which it resembles very closely in its schematic or-

¹² References from the period seem to suggest that both Olmos and Motolinía wrote complete manuscripts which have not survived in their entirety. The work of these two Franciscans had a pervasive influence on subsequent "ethnographic scholarship" conducted by members of the Franciscan Order (Sahagún, Mendieta, Torquemada) as well as by other authors both lay and clerical (López de Gómara, Las Casas, Cervantes de Salazar, et al.). For more on the insoluble conundrum regarding the dispersion of the manuscripts of Olmos and Motolinía, see Baudot's comments in his editions of both authors: A. de Olmos, *Tratado de hechicerías y sortilegios de fray Andrés de Olmos* (México 1979) and T. de Motolinía, *Historia de los indios de la Nueva España* (Madrid 1985). See also C. Gibson and J. Glass, "A Census of Middle American Prose Manuscripts in the Native Historical Tradition", in: *Handbook of Middle American Indians* (as in n.3) 15.322-400, especially Table 1, p. 323.

¹³ D'Olwer and Cline, *Bernardino de Sahagún* (as in n.3) 188.

ganisation, exceptions being that Sahagún added a book on Nahuatl rhetoric (Book VI) and another on the history of the conquest of Mexico as seen from an Aztec perspective (Book XII). Sahagún's design called for each page of his work to consist of two columns, with the Nahuatl text on the right and its Spanish translation—or paraphrase—on the left. In addition, the *General History* contains approximately 1,850 illustrations painted in the native tradition of the screenfold books; most of these glyphs appear in the left column.¹⁴

The Nahuatl version of the *General History* was finished in 1569, but Sahagún ran into problems finding funds to finance its translation into Spanish. Finally, in 1575, after he had written to both the Pope and the King explaining his plight, aid came to him in the person of the newly-appointed General Commissary of New Spain, friar Rodrigo de Sequera, who, duly impressed by Sahagún's discursive feat, saw to it that funding was forthcoming so that a copy of the complete bilingual edition of the *General History* could be made and sent to Spain. By that time, an "anti-Indianist" Franciscan provincial, Alonso de Escalona, upon learning of Sahagún's appeals to Europe, as punishment, had ordered that the components of the friar's opus be dispersed throughout New Spain.¹⁵ Sahagún recognises the timely intervention of Sequera in the dedication of his work. Had it not been for the arrival of Sequera in New Spain, the original Nahuatl texts might not have been reassembled and the Spanish text never completed during Sahagún's lifetime.

The fate of Sahagún's extensive examination of Mexica culture provides a vivid reflection of the changing attitudes of royal and governmental authorities regarding studies of pre-conquest native civilisations. Even though Sahagún was requested by the Council of the Indies to translate his 12-book encyclopaedic work into Spanish, because of the subject matter contained therein, its publication,

¹⁴ Sahagún titled his books as follows: I—Gods; II—Ceremonies and Feasts; III—Origin of the Gods; IV—Soothsayers; V—Omens; VI—Rhetoric; VII—Sun, Moon, Stars, Binding the Years; VIII—Kings and Lords; IX—Merchants; X—The People; XI—Earthly Things; XII—Conquest of Mexico. D'Olwer and Cline, *Bernardino de Sahagún* (as in n.3) 188-89, 192-193.

¹⁵ B. de Sahagún, *Conquest of New Spain: 1585 Revision* (Salt Lake City 1989) 13.

like that of other sixteenth-century studies of Amerindian customs and religious rites, was denied. In 1575, the Council of the Indies "decided to ban future and suppress extant works in native tongues by missionaries, as possibly heretical and dangerous to true conversion."¹⁶ As if that were not enough injury, in a royal decree dated April 22, 1577, the crown ordered that all of Sahagún's manuscripts be confiscated and sent to the Council of the Indies. The atmosphere of the court with regard to studies of this type was expressed in no uncertain terms at the end of the same decree where it threatened the viceregal authorities in New Spain:

And be warned that by no means should you allow that anyone write things that deal with the superstitions and way of life that those Indians had, in any language, because that is the wish of Our Lord God.¹⁷

Sahagún's papers were not confiscated, thanks to the support of the Franciscan Order as well as that of the other religious orders which were against the royal prohibition of texts of this type; subsequently he was able to produce a revision of Book XII in 1585.¹⁸ Sahagún's *General History of the Things of New Spain* remained buried in the archives until its partial resurrection by Carlos María de Bustamante in the last century sparked scholarly interest.

The last decades of the sixteenth century produced a veritable dearth of published texts pertaining to the Indies. Surprisingly, then, in 1590, the Jesuit José de Acosta (1539-1600) was allowed to publish his encyclopaedic *Historia natural y moral de las Indias*,

¹⁶ D'Olwer and Cline, *Bernardino de Sahagún* (as in n.3) 196. For more on the politics of this issue see S.L. Cline's introduction to Sahagún, *Conquest of New Spain* (as in n.15) 10-14, where he suggests the death of the pro-Indianist president of the Council of the Indies, Juan de Ovando, as a turning point, and provides details about the ongoing conflict in New Spain between the regular clergy and the secular clergy, as well as about the internal strife in the Franciscan Order during the last two decades of Sahagún's life.

¹⁷ Friede, *La censura española* (as in n.7) 92-93 (my translation of Friede's reproduction of the decree).

¹⁸ S.L. Cline points out that the 1585 revision of Book XII differs from Book XII of the Florentine Codex in that it encompasses the European as well as the Amerindian viewpoint. Cline suggests that Sahagún uses Spanish sources for political ends in an attempt to verify the providential role of Cortés in the conquest and to link the Franciscans, the first strong mendicant presence in New Spain, with Cortés. Sahagún, *Conquest of New Spain* (as in n.15) 4-10.

in which he portrayed "the unique characteristics of America and its inhabitants, while at the same time emphasising the underlying unity between the Old World and the New."¹⁹ Acosta's was a work of philosophical history which attempted to explain indigenous customs. Oftentimes, however, his explanations for behaviours so alien to Europeans were simply that Satan was to blame. As Acosta lived after the Council of Trent, in the era of the Counter Reformation (he resided in Peru from 1570 to 1587), his answers to any problems resulting from inexplicable customs were simplistic in their adherence to orthodoxy. He felt that the native Americans must be converted to Christianity, and that if necessary their monuments, icons, and other idolatrous paraphernalia must be destroyed. Yet, at the same time, he felt that the indigenous peoples were indeed rational human beings.²⁰ Acosta's *Historia natural*, in many respects, contains a more tolerant Eurocentric view of the New World than does Oviedo's *Historia general*.

The reason for the publication of Acosta's *Historia natural* has everything to do with the providential terminology in which his discourse was steeped. The fact that Acosta presented his work as an example of how his Christian readers ought not to live explains why his text was published, while so many other ethnographic works were suppressed. Sahagún, for example, had attempted to explain the importance of his study in terms of the conversion to Christianity of the natives it treated, rather than in terms emphasizing his study's contribution to the lives of all good Christians. Unlike Sahagún, Acosta took precautionary measures against the censor, such as prefaces warning his readers about references to "unseemly" customs.²¹ Acosta understood what the censor was looking for and knew how to phrase his sentences in order to appease him.

In the second half of the sixteenth century, Spain's monarchs, and their underlings at home and abroad, struggled mightily with

¹⁹ Elliott, *The Old World* (as in n.9) 39.

²⁰ F. Sánchez-Blanco, "Descubrimiento de la variedad humana y formación del espíritu moderno en la España del siglo XVI: El impacto del Nuevo Mundo," *Revista de Indias* 45: 175 (1985) 189.

²¹ R. Adorno, "Literary Production and Suppression: Reading and Writing about Amerindians in Colonial Spanish America," *Depositio* 11: 28-29 (1986) 11.

the question of Amerindian policy. They learned through experience the persuasive power of texts written in the vernacular, that is, in Spanish and other European languages, rather than in Latin. In the 1550s, perhaps triggered by Las Casas' far-reaching *Brevísima*, official wrath prompted a severe crackdown in a shameless attempt to take control of the dissemination of all information about Spain's American colonies and their native inhabitants. The suppression of Sahagún's encyclopaedic text, unmatched as a comprehensive collection of pre-Contact-era Aztec knowledge, represents just one instance of censorship's crucial role in the limited discursive production of sixteenth-century Spain.

RECEPTION AND TRANSMISSION OF TEXTS

TOWARDS A RECEPTION HISTORY OF WESTERN MEDIEVAL ENCYCLOPAEDIAS IN ENGLAND BEFORE 1500

MICHAEL W. TWOMEY

The study of reception is constrained by the need for documentary evidence, much of which has been lost due to the vagaries of time and history. Our dependence on documents leads us to talk of reception and transmission of texts as if the texts transmitted and received themselves. Too often we think of books as vehicles for texts rather than as records of reception.¹ The critical edition dismisses the anomalies of so-called defective manuscripts and relegates non-authorial readings to the apparatus of variants at the bottom of the page. But whatever is not authorial in a manuscript may be a record of reception. Manuscripts are thus silent witnesses to the uses of past readers. Thus, one step towards a reception history is a list of manuscripts, traced back to their origins or at least dated and placed to an area. Physical evidence in the manuscript, such as notes by a reader, or evidence about the manuscript, such as positive identification in a medieval booklist or bequest, will take us a little further.

Another way to consider the reception of a text is via allusions, citations and extracts found in other texts—in other words, its intertextual relations with other texts. In modern print culture we are accustomed to a single authoritative text, sanctioned by an author. In manuscript culture, especially towards the end of the Middle Ages, it is the reader who determines the text by copying—or causing to be copied—what parts of the text he finds interesting or useful. Manuscript books become highly personalised testimony to the interests and tastes of one person. Not only the contents but also the illustrations and embellishments may be determined by the reader, who possesses a custom-made book, not a copy of an ex-

¹ Here I paraphrase Eric Reiter, "Textual Transformations in the Later Middle Ages: Rewriting as Clues to Reading and Use," paper read at the 29th International Medieval Congress, Western Michigan University, Kalamazoo, Michigan, May, 1994. I am grateful to Dr. Reiter for providing me a copy of his paper, to which this paragraph is indebted.

emplar. Readers also write in their books. Thus, many late medieval manuscript books are crazy-quilts of texts, notes, jottings, pictures, and scribbles. Customisation helps to explain why encyclopaedias need not be complete. Medieval readers often copied out extracts. Extracts of encyclopaedias can be found as separate manuscript items or embedded among other items.

To cite an early example, Vernon King showed recently that Isidore's *De natura rerum* and *Etymologiae* were among the chief sources for a pre-Carolingian compilation called the *Aratus latinus*, "a translation into barbarous Latin of a group of texts, consisting of the astronomical poem by Aratus of Soli, together with a commentary on it and a number of other associated texts."²

To cite a late example, Paris, BN lat. 4126 is a compilation by Robert de Popultoun (or Poppleton) done between 1357 and 1375, about which John Friedman writes in his study of northern British manuscripts.³ Popultoun, prior of the Carmelite house at Hulne, Northumberland, had donated 8 books listed in the 1366 and 1433 inventories of the Hulne library.⁴ Paris, BN lat. 4126 is a compilation of texts on British history that are set into a context of universal history by a *mappa mundi*, items on universal history such as Pseudo-Methodius' *Revelations*, and at the end apocalyptic texts supporting claims about the role of the mendicant orders in the final age. Several papal bulls concerning the mendicant orders are included in the preface as if to underwrite these claims. Items 16 and 17 adapt Isidore's discussion of the origins of the Picts and the Scots in the *Etymologiae*. Item 28 in the manuscript is a set of extracts from *Etymologiae* books 1, 5 and 6, here titled *De primis auctoribus sive scriptoribus historiarum*.⁵

² Vernon King, "An Unreported Early Use of Bede's *De natura rerum*," *Anglo-Saxon England* 22 (1993) 85-92, here quoting from 85. The readings that the *Aratus latinus* shares with the *De natura rerum* suggest that the manuscript of the *De natura rerum* used by the compiler came from an exemplar from North-west France, in the general region of Corbie, since that is both the supposed origin of the *Aratus latinus* and the origin of the *De natura rerum* manuscripts with these readings (91-92).

³ John B. Friedman, *Northern English Books, Owners, and Makers in the Late Middle Ages* (Syracuse 1995) 40-51 and notes on 294-99.

⁴ Friedman, *Northern English Books* (as in n.3) 42 and n.57.

⁵ Friedman, *Northern English Books* (as in n.3) 48-50.

As these two examples show, medieval encyclopaedias are subject to a condition that Paul Zumthor called *mouvance* in his famous study, *Essai de poétique médiévale*.⁶ This is the slippery condition of textuality that permits a reader or scribe to add to, subtract from, or re-arrange the work of another author, with the final *remaniement* or “re-working” nevertheless being regarded as the work of the original author. Our unwritten reception history of the medieval encyclopaedia would have to take into account this fluidity in the texts.

The motives of readers are difficult to reconstruct. If I have a manuscript copied, I may simply want it for display; I may want it for my own private reading; I may commission it as a gift; I may want it for the library of the religious house for which I am responsible. In many cases, no response is ever recorded beyond the mere fact that I had possession of the book, and usually not even that. Unless my response emerges—in the form of writing or of recorded speech—my reading of the encyclopaedia can only be conjectured. If I place the book in a library, and then that library is catalogued by subject matter, then the catalogue will suggest a rubric for the encyclopaedia. Otherwise, when I am long dead, my use of the book will have to be deduced on the basis of an idea of what the people of my social class and educational background were likely to do with such books as I may have owned. As such, any reception history will always be tentative.

In order to write a reception history of western medieval encyclopaedias in England, we would need to look at the individuals and the intellectual communities who owned and used the books, to the extent that this is possible. In this essay I sketch out a working hypothesis towards such a reception history that describes three kinds of reception. First, encyclopaedias are found as pedagogical aids in the schools. The setting and the ownership are institutional, production is by a *scriptorium*, and the chief user is a teacher. Second, encyclopaedias can be the raw material for sermons. The setting and ownership are both institutional and individual, production is by a *scriptorium* or by a professional scribe, and the chief user is a preacher. Third, encyclopaedias are found in the private library, where they are possessions with monetary value figuring in inheri-

⁶ Paul Zumthor, *Essai de poétique médiévale* (Paris 1972) 65-75.

tances and bequests. Production is by a professional scribe, but now often in a vernacular language, and the chief users are educated laymen as well as regular and secular clergy. These three kinds of reception are not meant to imply specific centuries. Once a certain kind of reception gets under way, it seems to continue to the end of the Middle Ages. Nevertheless, the first kind of use begins in the seventh century, the second in the thirteenth century, and the third in the fourteenth century. Early medieval encyclopaedias continue to be produced and used through the end of the Middle Ages and newer encyclopaedias do not drive out older ones; rather, they find their niche in an expanded encyclopaedia "market."

1. ENCYCLOPAEDIAS IN THE SCHOOLS

To an earlier generation of scholars, such as Michel de Bouïard, Maurice de Gandillac, and Pierre Michaud-Quantin, encyclopaedias were agents in the vulgarisation of knowledge—re-packaging complex knowledge into a simpler, more accessible form.⁷ This was assumed especially of the later medieval encyclopaedias, and especially of encyclopaedias written in the vernacular languages.

To some extent this assumption comes from the encyclopaedists themselves. The prologues of many encyclopaedias give the impression that their authors were compiling textbooks for classroom use, because they include statements such as Honorius' that he wrote the *Imago mundi* for "the instruction of the many, who are lacking copies of books."⁸ In the first generation of medieval encyclopaedias, before the twelfth century, writers such as Bede and Rabanus Maurus were teachers in monastic schools.⁹ The writers

⁷ These sentiments are amply demonstrated in, for example, Maurice de Gandillac, "Encyclopédies pré-médiévales et médiévales" and Pierre Michaud-Quantin, "Les petites encyclopédies du XIII^e siècle," in: *La Pensée encyclopédique au moyen âge*, Langages / Documents (Neuchâtel 1966) 7-42 and 105-20; Michel de Bouïard, "Les encyclopédies médiévales: sur «la connaissance de la nature et du monde» au moyen âge," *Revue des questions historiques* 112 (1930) 258-304.

⁸ *Ad instructionem itaque multorum quibus deest copia librorum, hic libellus edatur.* "Honorius Augustodunensis, *Imago mundi*," ed. Valerie I.J. Flint, *AHDLMA* 49 (1982) 7-153, here citing 49.

⁹ On Rabanus as a teacher: Mayke de Jong, "Old Law and New-found Power: Hrabanus Maurus and the Old Testament," in: *Centres of Learning: Learning and Location in Pre-Modern Europe and the Near East*, ed. Jan Willem Drijvers and

of the next generation of encyclopaedias, those written in the years 1175 through 1275, also taught in the universities. Alexander Neckam taught at Paris, then at the schools in Dunstable and St. Albans, and finally at Oxford before entering the Augustinian monastery at Cirencester. Bartholomaeus Anglicus was a Franciscan who lectured in Paris and Magdeburg. Thomas of Cantimpré was a Dominican who taught at the convent school in Louvain. Vincent of Beauvais, another Dominican, spent part of his life while working on the *Speculum maius* at the Cistercian abbey at Royaumont as *lector*.¹⁰

The encyclopaedists' *Sitz im Leben* in education suggests that encyclopaedias as a genre might have been meant as school-texts. However, treatments of medieval education usually make only passing reference to individual encyclopaedias such as Isidore's *Etymologiae*, and the mechanisms by which encyclopaedias might have been used in education are largely unexplored.

The problem is to connect the encyclopaedias with the teachers, students, and institutions who used them. The typical Carolingian curriculum, imported to Francia from England, Spain, and Italy in the eighth and ninth centuries and then exported back from Francia to England in the next century or so, remained remarkably consistent across several centuries and throughout the West, placing heavy emphasis on *auctores* such as Virgil, plus Donatus, Priscian, Boethius, Isidore, and Bede.¹¹ With about 77 monastic and cathe-

Alasdair A. MacDonald, Brill's Studies in Intellectual History 61 (Leiden 1995) 162-76; the essays in R. Kottje and H. Maurer, eds., *Hrabanus Maurus: Lehrer, Abt, und Bischoff* (Wiesbaden 1982); Kottje, "Hrabanus Maurus," in: *Die deutsche Literatur des Mittelalters Verfasserlexikon* (Berlin 1978 ff), 4.166-96; Kottje, "Hrabanus Maurus—Praeceptor Germaniae?" *DA* 31 (1976) 535-45.

¹⁰ On Alexander Neckam: R.W. Hunt, *The Schools and the Cloister: The Life and Writings of Alexander Nequam (1157-1217)*, ed. and rev. Margaret Gibson (Oxford 1984) 2-5, 10. On Vincent of Beauvais: J.B. Voorbij, "The *Speculum historiale*: Some Aspects of Its Genesis and Manuscript Tradition," in: *Vincent of Beauvais and Alexander the Great: Studies on the Speculum Maius and Its Translation into Medieval Vernaculars*, ed. W.J. Aerts, E.R. Smits, and J.B. Voorbij, *Mediaevalia Groningana* 7 (Groningen 1986) 13, and sources cited *ibid.* n.5.

¹¹ Pierre Riché, "Manuels et programmes de cours dans l'antiquité tardive et le haut moyen âge," in: *Manuels, programmes de cours et techniques d'enseignement dans les universités médiévales. Actes du colloque international de Louvain-la-Neuve (9-11 septembre 1993)*, ed. Jacqueline Hamesse, Université Catholique de

dral schools in the eighth and ninth centuries, and about 100 by the tenth (as estimated by Pierre Riché), one begins to imagine that the encyclopaedias of Isidore and Bede could have been very influential indeed.¹²

Even before the Carolingian period, Bishop Braulio's correspondence with Isidore indicates that the *Etymologiae* was already circulating widely in Isidore's lifetime. Bernhard Bischoff showed that Isidore of Seville's *Etymologiae* was both a major text in religious houses and a source of etymologies for later encyclopaedias. There are about 20 surviving manuscripts of Isidore's work, mostly of the *Etymologiae*, from eighth-century Christian Spain. Outside of Spain—in Italy, France, England, and Ireland—the number of pre-Carolingian manuscripts of the *Etymologiae* attests to its early success.¹³

Louvain Publications de l'Institut d'Études Médiévales / Textes, Études, Congrès 16 (Louvain-la-Neuve 1994) 1-7, here citing 3; John J. Contreni, "The Tenth Century: The Perspective from the Schools," in: *Haut Moyen-Age: Culture, éducation, et société. Etudes offertes à Pierre Riché*, ed. Michel Sot, Centre de Recherche sur l'Antiquité et le Haut Moyen-Age de l'Université Paris-X-Nanterre (La Garenne-Colombes 1990) 379-87, here citing 383; M.L.W. Laistner, *Thought and Letters in Western Europe, A.D. 500 to 900* (London 1931; rev. ed. Ithaca, NY 1957), 217-37.

¹² Pierre Riché, *Ecoles et enseignement dans le Haut Moyen Age, fin du Ve siècle-milieu du XIe siècle*, 2nd ed. (Paris 1989) 214-20 (class-books), 99-110 and 137-86 (numbers of schools). The number of extant Isidore and Bede manuscripts lags far behind the number of schools, however. For example, there are 32 manuscripts of Isidore's *Etymologiae* and 29 manuscripts of his *De natura rerum* from the ninth and tenth centuries: Manuel C. Díaz y Díaz, *Index scriptorum latinorum medii aevi hispanorum*, 2 vols. (Salamanca 1958-59) 1.40-41 and 1.32. On the dissemination of Isidore's *De natura rerum*, see Jacques Fontaine, ed., *Isidore de Seville, Traité de la nature*, Bibliothèque de l'École des Hautes Études Hispaniques 28 (Bordeaux 1960) 69-83 and map between 83 and 85.

¹³ Manuscripts of the *Etymologiae* in Italy go back to 700; in France, the earliest is a Corbie manuscript of the second half of the seventh century, the oldest manuscript in an Irish hand is a seventh-century leaf from Book XI of the *Etymologiae* probably written at Bobbio and then made part of a St. Gall binding, now St. Gall, Stiftsbibliothek 1399 a.1. The seventh-century British scholar Aldhelm knew the *Etymologiae*, although the oldest surviving British manuscript we have is an eighth-century Northumbrian fragment of Book XIV, now Düsseldorf, Staatsarchiv Fragm. 28. See: Bernhard Bischoff, "Die europäische Verbreitung der Werke Isidors von Sevilla," in *Isidoriana*, ed. Manuel C. Díaz y Díaz (Leon 1961) 317-44, here citing 319, 320-23, 327; and *Codices Latini Antiquiores*, ed. E.A. Lowe, 11 vols. (Oxford 1934-66) 7 no. 995, and 8 no. 1189.

Few English booklists survive from before the twelfth century, but the little evidence that does exist supports the idea that encyclopaedias were used as school texts. A list of school texts owned by a certain Athelstan that includes Isidore's *De natura rerum*, now London, BL Cotton Domitian i, fol. 55v (s.x med.), suggests to Michael Lapidge that the owner was a schoolmaster or grammarian, probably at St. Augustine's in Canterbury.¹⁴ Another copy is found in a list mainly of school texts that is possibly from Worcester since the list, in what is now Oxford, Bodl. Tanner 3, was at Worcester in the second half of the twelfth century, and a third seems to have been at Peterborough.¹⁵ Sometime between 1069 and 1072 Bishop Leofric of Exeter obtained a copy of the *Etymologiae* for the cathedral, as is recorded in three separate booklists.¹⁶ At the end of the Anglo-Saxon period, Teresa Webber's study of the Salisbury Cathedral library gives a picture of a library founded in the eleventh century along the instructions of Cassiodorus' *Institutiones* and heavily indebted to the abbey at Bec for exemplars. The Salisbury library is necessarily weighted towards ancient Christian authors, and the encyclopaedias represented are Isidore's *Etymologiae* (one complete copy and two sets of extracts) and one copy of Isidore's *De natura rerum*.¹⁷

Because there is more evidence from Francia, and because the Carolingian curriculum moved from there to England, it seems fair to look to Francia. John Contreni's studies of Irish teachers and their work in the cathedral school of Laon have shed light on the importance of the *Etymologiae* specifically in linguistic education. As such, the *Etymologiae* was important preparation for the more difficult work of *lectio divina*. The eighth and ninth centuries were

¹⁴ Michael Lapidge, "Surviving Booklists from Anglo-Saxon England," in: *Learning and Literature in Anglo-Saxon England: Studies Presented to Peter Clemoes on the Occasion of His Sixty-Fifth Birthday*, ed. Michael Lapidge and Helmut Gneuss (Cambridge 1985) 33-89, here citing III.1 on 51.

¹⁵ Lapidge, "Surviving Booklists" (as in n.14) XI.15 on 70 and XIII.35 on 78.

¹⁶ See Lapidge, "Surviving Booklists" (as in n.14) 64 and R.W. Chambers, Max Förster, and Robin Flower, eds., *The Exeter Book of Old English Poetry* (London 1933) 10-32.

¹⁷ Teresa Webber, *Scribes and Scholars at Salisbury Cathedral c.1075-c.1125*, Oxford Historical Monographs (Oxford 1992), here citing 36, 46, 47-48, 52n, 144, 145, 165.

a time of competing educational schemes before the regularization of the trivium and quadrivium. Some of these schemes were founded on the *Etymologiae*. One of these was by Martin of Ireland (819-75), a master at Laon. Like John Scottus and other ninth-century teachers, Martin believed that education was a matter of recalling to the mind what sin had buried deep in the memory. The arts are thus an essential aspect of salvation, and knowledge of language was the first step towards heaven. Martin's teaching book, Laon, Bibliothèque municipale 468, is in his own hand and corrected by Martin himself. Contreni discovered that Martin's definitions of the arts derived from books 2 and 3 of the *Etymologiae*. Another teaching book from Laon, Paris, BN lat. 3088, fols. 116r-121v, contains approximately 200 notes on (mostly Greek) words from the *Etymologiae*. One manuscript of the entire *Etymologiae* was in the possession of an Irish teacher named Probus of Mainz (now Laon, Bibliothèque municipale 447), who annotated it, apparently for teaching use.¹⁸

In his classic study of education from the fifth to eleventh centuries, Pierre Riché observes that Isidore's and Bede's encyclopaedias *De natura rerum* were basic texts for the study of astronomy.¹⁹ The two texts are closely related: Bede's makes heavy use of Isidore's, of the Pseudo-Isidorean *De ordine creaturarum*, and of Pliny's *Natural History*. We know a little about the early reception of Bede's *De natura rerum*, which Bede wrote in about 703 at around the time he wrote the *De temporibus*. For example, Rabanus Maurus' student at Fulda, Walahfrid Strabo, kept a *vademecum*, now St. Gall 878, over half of whose entries are direct evi-

¹⁸ See John J. Contreni, "The Irish Contribution to the European Classroom," in: *Proceedings of the Seventh International Congress of Celtic Studies, held at Oxford from 10th to 15th July, 1983*, ed. D. Ellis Evans et al. (Oxford 1986) 79-90, here citing 84; "John Scottus, Martin Hiberniensis, the Liberal Arts, and Teaching," in: *Insular Latin Studies: Papers on Latin Texts and Manuscripts of the British Isles, 550-1066*, ed. Michael W. Herren, *Papers in Medieval Studies* 1 (Toronto 1981) 1-22, here citing 5 and 13; "The Irish 'Colony' at Laon During the Time of John Scottus," in: *Jean Scot Érigène et l'histoire de la philosophie*, ed. René Roques, *Colloques Internationaux du Centre de la Recherche Scientifique* 561 (Paris 1977) 59-67, here citing 62. All of these essays are reprinted with original pagination in *Carolingian Learning, Masters, and Manuscripts*, Collected Studies Series, CS 363 (Aldershot, Hampshire / Brookfield, VT 1992).

¹⁹ Riché, *Écoles et enseignement* (as in n.12) 272-73.

dence of Rabanus' teaching in natural history from Bede's *De temporibus* and *De natura rerum*.²⁰

One way to study the reception of an encyclopaedia is to see how it is adapted into later encyclopaedias. Bede himself used parts of his *De natura rerum* when he revised the *De temporibus* into the *De temporum ratione*, which the English homilist and teacher Ælfric translated into English in about 993, so we can say that in a sense there is a vernacular version of the *De natura rerum*.²¹ But unless the vernacular was French, translation into a vernacular language invariably a dead-end for an encyclopaedia. Ælfric's Old English version has no *Nachleben*. It is in its original Latin that Bede's *De natura rerum* has the longest life.

And what a curious life it is. A number of Bede manuscripts bear the marks of their reception. Some manuscripts were glossed. For example, Angers 477 (c.897, from St. Aubin) has glosses in Breton done in several hands across several centuries.²² Some manuscripts have interpolated in them the so-called *vetus commentarius* published in the *scholia* at the bottom of the page in the PL and CCSL editions. These *scholia* are believed to come from the late tenth century, possibly from Abbo of Fleury.²³ Some manu-

²⁰ Bernhard Bischoff, "Eine Sammelhandschrift Walahfrid Strabos (Cod. Sangall. 878)," in: *Aus der Welt des Buches: Festgabe Georg Leyh* (Leipzig 1950) 30-48, rpt. with additions in *Mittelalterlicher Studien II* (Stuttgart 1967) 34-51. See also Wesley M. Stevens, "Walahfrid Strabo—A Student at Fulda," in: *Historical Papers 1971 of the Canadian Historical Association*, ed. J. Atherton (Ottawa 1972) 13-20.

²¹ *Byrhtferth's Enchiridion*, ed. Peter S. Baker and Michael Lapidge, EETS SS 15 (Oxford 1995); *Ælfric's De temporibus anni*, ed. Heinrich Henel, EETS OS 213 (London 1942).

²² See the ed. of Charles W. Jones, *Bedae Venerabilis Opera, pars VI: Opera didascalica, 1*, CCSL 123A (Turnhout 1975) 174. Other glossed manuscripts are Bamberg, Patr. 101; Berlin 130 / Phill. 1832, fols. 1r-9r; Karlsruhe, Aug. 167, fols. 18r-23v; London, BL Tiberius E.iv, fols. 125r-131v; and Melk, Stiftsbibliothek 370 (olim G.32), pp. 1-16 (Jones, ed. cit., 174-78). Further on the glossed manuscripts see Frances Randall Lipp, *The Carolingian Commentaries on Bede's De natura rerum* (diss. Yale Univ. 1961).

²³ Harry Bober, "An Illustrated Medieval School-Book of Bede's *De natura rerum*," *Journal of the Walters Art Gallery* 19-20 (1956-57) 65-97, here citing 69. See further A. Van de Vyver, "Les œuvres inédites d'Abbon de Fleury," *RB* 47 (1935) 125-69, esp. 150-54; and Charles W. Jones, *Bedae pseudepigrapha: Scientific Writings Falsely Attributed to Bede* (Ithaca, NY 1939) 10, 21-38.

scripts are of excerpts or only of certain books.²⁴ It was even possible to re-arrange the chapters.²⁵

These excerpted texts offer the most interesting application of Bede's *De natura rerum* and also provide a glimpse of its use as a school-text from Carolingian times at least into the twelfth century. Of special interest is a group of five eleventh- and twelfth-century British manuscripts containing extracts of the *De natura rerum* combined with extracts from other cosmological texts, such as book 13 of Isidore's *Etymologiae* and chapters 10 and 11 of Isidore's *De natura rerum*, which are combined with the *Sententiae* of Abbo of Fleury.²⁶ The *Sententiae* are a set of notes often found interpolated in scientific compilations traceable directly or indirectly to Fleury; thus, these five manuscripts are by-products of the Fleury monastery's enactment of Alcuin's educational program in Carolingian France, a program in which both Bede (as teacher) and Fleury (as school) figured prominently. Indeed, Jones' list of *De natura rerum* manuscripts shows 4, possibly 5 traceable to Fleury, none of which is among the 5 manuscripts under discussion at the moment.²⁷

In the 1950s, Harry Bober showed that each of these five manu-

²⁴ Cava, Biblioteca Com. 3, fols. 137-50, 192-202; Escorial L.I.3, fols. 233v-238v; Oxford, Bodl. Digby 63, fols. 33v-34v; Oxford, St. John's Coll. 17; Wolfenbüttel, Helmst. 696, fol. 62v. Jones, *Opera didascalica*, 1 (as in n.22) 176, 177, 178, 179.

²⁵ As in Oxford, Bodley canon. lat. 560 (s.xi). The text is on fols. 4v-24r, and the chapter order is: 1-9, 19, 22-23, 36, 11, 10, 16, 20, 12-13, 15, 14, 25, 28-35, 37, 46, 49, 38, 40-43. Jones, *Opera didascalica*, 1 (as in n.22) 179.

²⁶ Baltimore, Walters Art Gallery 73 (s.xii); London, BL Cotton Tiberius C.i (c.1122, Peterborough); Cotton Tiberius E.iv (s.xii in., Winchcomb); Egerton 3088 (s.xiii, Dore Abbey; copy of Tiberius E.iv?); Oxford, St. John's Coll. 17 (c.1043, Ramsey; after 1092, Thorney). These are discussed in Bober, "Illustrated Medieval School-Book" (as in n.23); for corrections and bibliography see Jones' list of *De natura rerum* manuscripts, *Opera didascalica*, 1 (as in n.22) 174-79.

²⁷ Orléans 31 (s.x), pp. 221-229; Paris, BN lat. 5543 (dated 847), fols. 76v-85r; Paris, N.A. 1615 (s.ix, once Orléans), fols. 128v-135v; N.A. 1632 (s.ix), fols. 1r-9r; Vatican, Regin. lat. 1260 (s.ix), fols. 1r-7v. Jones, *Opera didascalica*, 1 (as in n.22) 178-80, 183. It was Abbo who in a sense "re-introduced" Bede in England, since at one point before he became abbot of Fleury he moved from Fleury to Ramsey, helping it to rebuild after the Viking invasions. One of these five manuscripts is in fact a Ramsey MS from about 1043; see Bober, "Illustrated Medieval School-Book" (as in n.23) 74, 77, and the previous note.

scripts had been compiled around a set of *rotae* or circular diagrams that serve the same purpose as blackboard diagrams or slides in a modern classroom. In some cases the *rotae* and the choice of extracts are so similar that there is obviously some relationship among the manuscripts. The *rotae* are inspired by those in Isidore's *De natura rerum*, which in some manuscripts was even known as the *Liber rotarum*. Most of the chapters in these manuscripts come from Bede's *De natura rerum*, but the basis of the compilation is the *rotae*, not the text. In fact, in some other manuscripts the *rotae* stand alone, without any supporting text, and so the *rotae* could be considered self-explanatory. However, when there is a text accompanying the *rotae*, it is from Isidore, not from Bede. In manuscripts of the whole of Bede's *De natura rerum*, there are no *rotae*. Bede seems to have disdained teaching aids and diagrams, rather expecting his students to grasp abstractions through verbal explanation alone, as *he* could. Not only that, Bede held Isidore in some suspicion. He never cited Isidore by name, and at the end of his life, as his disciple Cuthbert reports, Bede was engaged in making a set of extracts from the *De natura rerum* "so that his disciples would not read lies and would not work without profit" by reading Isidore's allegories and digressions.²⁸

Whereas under the regime of the critical edition we would consider such excerpted manuscripts defective—false witnesses to Bede's and Isidore's true texts—under the aegis of reception we see them as part of the record of the didascalical use of Bede's and Isidore's encyclopaedias in early medieval schools. Although we have many manuscripts of whole encyclopaedias from very early, it is also in excerpt form that Bede and Isidore, often re-arranged into new compilations that are apparently specific to given pedagogical situations, find their place in the arts curriculum of the schools.

The uses of Isidore and Bede in the cathedral and monastic schools before the rise of the universities and the fraternal orders reveal an interesting connection with the modern notion of an encyclopaedia as a pedagogical tool. The terms "encyclopaedic" and "encyclopaedia" were not used in the Middle Ages to define any

²⁸ *Nolo ut discipuli mei mendacium legant, et in hoc post obitum meum sine fructu laborent.* "Epistola Cuthberti de obitu Bedae," *Symeonis monachi opera omnia*, ed. Thomas Arnold, 2 vols., Rolls Series 75 (London 1882-85) 1.45.

kind of text.²⁹ Medieval books of encyclopaedic proportions were called by the Latin words *speculum*, *imago mundi*, *de proprietatibus rerum*, *de naturis rerum*, *elucidarium*, *compendium*, *thesaurus*, *liber floridus*, or their vernacular equivalents. These terms suggest a cornucopia of knowledge contained between two covers.³⁰ But despite the pretence of completeness expressed in such titles, the medieval encyclopaedia, like its modern counterpart, was intended as a prolegomenon to further study, not as a self-contained education. In the cathedral and monastic schools, further study meant not study in the subject at hand, be it the computus, astronomy, or geography, but study in *lectio divina*—the study of Scripture. Whereas no modern teacher would teach from an encyclopaedia, teachers in monastic and cathedral schools apparently could and did.

2. UNIVERSITY AND PULPIT USE

We would not expect the practice of teaching from encyclopaedias to continue into the arts course at the universities, even though in so many ways the university curricula were appropriated from the earlier schools. Although banned at first, Aristotle came to dominate university education. Aristotelian philosophy, together with scholastic theological teaching tools such as Peter Lombard's *Sen-*

²⁹ As Robert Collison pointed out, although Quintilian had used the Greek term in his *Institutio oratoria* to refer to a world of learning, the word *cyclopaedia* in Greek was introduced only in the middle of the sixteenth century by Joachim Sterck van Ringelbergh, whose title, *Lucubrationes, vel potius absolutissima Ku-clopaideia, nempe liber de ratione studii* (Basle: Westhemer, 1541) reveals the pedagogical intention of the book. Similarly, when the noun *encyclopaedia*, Latinised, was introduced in 1559 by Paul Scalich / Scaliger, his title was *Encyclopaedia, seu Orbis disciplinarium, tum sacrarum quam prophanum Epitome* (Basle: J. Oporinus, 1559). Robert Collison, *Encyclopedias: Their History Throughout the Ages* (New York 1964) 78, 79-80.

³⁰ The Middle Ages had terms for many kinds of compilations, and we now suspect that these terms were used with care. See Olga Weijers, "Les dictionnaires et autres répertoires," 197-208, and Jacqueline Hamesse, "Le vocabulaire des florilèges médiévaux," 209-30, in: *Méthodes et instruments du travail intellectuel au moyen âge: Études sur le vocabulaire*, ed. Olga Weijers, CIVICIMA Études sur le Vocabulaire Intellectuel de Moyen Age 3 (Turnhout 1990). This being the case, the diversity of terms for what we call encyclopaedias could suggest that these texts were not perceived to be a single genre.

tences and Peter Comestor's *Historia scholastica*, effectively kept the encyclopaedias of Isidore and Bede in the schools. These and other books we recognise as encyclopaedias are strikingly absent from the universities' reading lists.³¹

However, there is small evidence that encyclopaedias played some role in university education, and we need to pursue this possibility further. In England, a total of ten copies of the *De proprietatibus rerum* were bequeathed to Oxford and Cambridge colleges in the fourteenth and fifteenth centuries by various donors.³² Copies of Honorius' *Imago mundi*, Vincent's *Speculum*, and Isidore's *Etymologiae* were bequeathed to Merton College, Oxford, in the late fourteenth and early fifteenth centuries.³³ In 1524 the monks at Canterbury Cathedral made a list of 292 books they had donated to Canterbury College, Oxford, for the use of monks attending the college, and three of these were copies of the *Etymologiae*.³⁴ These bequests at least put the books in the colleges, although without further evidence they cannot be taken as indications that the books were part of the curriculum. Evidence that university students were required to read encyclopaedias is scant to non-existent. Where there are reading lists, they are devoid of encyclopaedias.³⁵ Books were made available to college fellows via the *electio* system, by

³¹ The curriculum at Paris and Oxford is described in Gordon Leff, *Paris and Oxford Universities in the Thirteenth and Fourteenth Centuries: An Institutional and Intellectual History*, New Dimensions in History / Essays in Comparative History (New York 1968) 116-84.

³² M.C. Seymour, "Some Medieval English Owners of the *De proprietatibus rerum*," *Bodleian Library Record* 9 (1974) 156-65, here citing 159-62.

³³ F.M. Powicke, *The Medieval Books of Merton College* (Oxford 1931) 189, 110, 84, 160, and 188.

³⁴ This list is now a roll marked O.134 in the Canterbury Cathedral Library. The three copies of the *Etymologiae* were in a part of the list labeled *libri reperti in libraria*, in the section of books on theology. See Montague Rhodes James, *The Ancient Libraries of Canterbury and Dover* (Cambridge 1903), 166 item 50, 167 item 72, 168 item 131.

³⁵ For example, see J.M. Fletcher, "The Faculty of Arts," in: *The History of the University of Oxford*, gen. ed. T.H. Ashton, I: *The Early Oxford Schools*, ed. J.I. Catto (Oxford 1984) 369-99 (arts curriculum, booklists, statutes); Hastings Rashdell, *The Universities of Europe in the Middle Ages*, 2nd ed. F.M. Powicke and A.B. Emden, 3 vols. (Oxford 1936) 3:153-60 (degree requirements at Oxford); J.C.T. Oates, *Cambridge University Library: A History from the Beginnings to the Copyright Act of Queen Anne* (Cambridge 1986) 7 (first booklist at Cambridge).

which the fellows received a batch of books called a *sors* for as long as several years. However, to my knowledge no *electiones* including encyclopaedias have come to light.³⁶

For indirect evidence, we have to turn again to France, where there is a reference to Isidore's *Etymologiae* in a University of Paris study guide from about 1250. A number of such study guides exist. They are, in effect, a list of exam questions and outlines for answers that the faculty prepared not only for practical purposes but also as explanations and justifications for the curriculum. In this example, the list includes questions from every one of the seven liberal arts, which are here divided into three main groups: *philosophia liberalis* (the *quadrivium*), *philosophia moralis* (ethics), and *philosophia rationalis* (the *trivium*). Under the heading *astronomia* in the section on *philosophia liberalis* we find the following:

Concerning astrology: [know] its definition; that according to certain authorities astrology is the part of astronomy that concerns prognostication; that according to Isidore astrology is partly concerned with natural philosophy and partly superstition...³⁷

This quotation from Book Three of the *Etymologiae* [3.27.1] shows that students were expected to know their Isidore, but on this slender evidence, that is all that can be said.

The only other evidence that anyone has found comes from the stationers' lists of books available through the *pecia* system. We have only a few surviving *pecia* lists, called *taxationes*. Only Paris has left *taxationes* for theology and philosophy, the disciplines in which we might hope to find encyclopaedias. There are two such

³⁶ For example, see N.R. Ker, "The Books of Philosophy Distributed at Merton College in 1372 and 1375," in: *Books, Collectors, and Libraries: Studies in the Medieval Heritage*, ed. Andrew G. Watson (London 1985) 344-50, 360-66; originally publ. in *Medieval Studies for J.A.W. Bennett, aetatis suae LXX*, ed. P.L. Heyworth (London 1981) 347-94. The *electio* system is explained by F.M. Powicke, *The Medieval Books of Merton College* (Oxford 1931) 12-18.

³⁷ *De astrologia: diffinitio ejus; quod secundum quosdam auctores astrologia est diuinitua sicut pars astronomie que est de iudiciis; quod secundum Ysidorum astrologia est partim naturalis, partim superstitiosa* ... Claude Lafleur, "Les 'Guides de l'étudiant' de la faculté des arts de l'université de Paris au XIIIe siècle," in: *Philosophy and Learning: Universities in the Middle Ages*, ed. Maarten J.F.M. Hoenen, J.H. Josef Schneider, Georg Wieland, Education and Society in the Middle Ages and Renaissance 6 (Leiden 1995) 137-99, here citing 192.

taxationes surviving from Paris—an undated list that has been assigned to about the year 1275 on the basis of its contents, and a dated list from 1304.³⁸ The 1275 list has 138 books, and the 1304 list has 156 books. The two lists have only between 42 and 44 books in common. However, the encyclopaedia of Bartholomaeus Anglicus appears on both lists. In the 1275 list, it is a few entries away from a book called simply *De natura rerum*, which could refer to the encyclopaedias by that name by Isidore, Bede, and Alexander Neckam.³⁹ In the 1304 list, Bartholomaeus' *De proprietatibus rerum* occurs in a group of texts known to have been preachers' tools: sermons, exempla, *distinctiones*, and the like.

Here is where the second kind of reception, preaching, enters the picture. Louis Bataillon has conjectured that if the ultimate purpose of the university was the formation of a clergy qualified as preachers and confessors, then Bartholomaeus' encyclopaedia was considered a pastoral text in this *taxatio*, even though it was not

³⁸ The 1304 list is for the stationer Andrew of Sens, and Richard and Mary Rouse have argued that the 1275 list is for Andrew's predecessor William of Sens. Richard H. and Mary A. Rouse, "The Book Trade at the University of Paris, ca. 1250-ca. 1350," in: *La production du livre universitaire au moyen âge: exemplar et pecia. Actes du symposium tenu au Collegio San Bonaventura de Grottaferrata en mai 1983*, ed. Louis J. Bataillon, G. Guyot, and Richard H. Rouse (Paris 1988) 41-113; rpt. in the Rouses' *Authentic Witnesses: Approaches to Medieval Texts and Manuscripts*, Publications in Medieval Studies 17 (Notre Dame, IN 1991) 259-338. Both lists are printed in Heinrich Denifle and Emile Chatelain, eds., *Chartularium universitatis Parisiensis*, 4 vols. (Paris 1889-97) 1.644-49 and 2.107-12, and the 1275 list in Lynn Thorndike, ed. and trans., *University Records and Life in the Middle Ages* (New York 1944, rpt. 1975) 113-17. Both editions incorrectly date the 1275 list to 1286. The standard study of the *pecia* system remains Jean Destrez, *La pecia dans les manuscrits universitaires du XIIIe et du XIVe siècle* (Paris 1935). Interestingly, no one has noticed that the 1304 list also has a *Secretum secretorum*: 8 *peciae*, taxed at 6 *denarii* (*deniers*) each. Denifle and Chatelain, *Chartularium* 2.107.

³⁹ The *taxatio* lists show how much profit the stationer was permitted to take per *pecia*, and how many *peciae* made up each book. These prices were controlled by the university in order to prevent the stationer from gouging the students. In the 1275 list, the *De natura rerum* has 41 *peciae*, from which the stationer may derive rent of 18 *denarii* (*deniers*) each. The *De proprietatibus rerum* has 102 *peciae*, from which the stationer may derive rent of 4 *solidi* (*sous*) each. In the 1304 list, the *De proprietatibus rerum* has 100 *peciae*, from which the stationer may derive rent of 6 *solidi* (*sous*) each. Denifle and Chatelain, *Chartularium* (as in n.38) 1.644 and 2.109.

part of the university curriculum.⁴⁰ It is the sermons themselves that indicate the use of Bartholomaeus' encyclopaedia as a preaching tool in England. The *De proprietatibus rerum* was a source for the preachers Thomas Brinton and Thomas Wimbeldon. Thereafter, it is a source for a number of anonymous fourteenth- and fifteenth-century sermons written in England.⁴¹

If preaching could be considered the public practice of *lectio divina*, then it is possible to see the use of encyclopaedias by preachers as an extension of the use of encyclopaedias in the monastic and cathedral schools. Although it is difficult to place encyclopaedias at the universities, we know that university students were expected to give sermons, and indeed the dominant form for the later medieval sermon is the so-called "university sermon."⁴² Now, instead of being taught *by* encyclopaedias, students are practising their public mission *with* encyclopaedias. Whether or not encyclopaedias were ever used as textbooks in the universities—and it seems likely that they were not—encyclopaedias are still being used as educational vehicles by preachers. Now, however, those being educated are anyone who happens to be in the audience, and the aim of the education is not *lectio divina* but public

⁴⁰ Louis Jacques Bataillon, "Les textes théologiques et philosophiques diffusés à Paris par exemplar et pecia," in: *La production du livre* (as in n.38) 155-63, here citing 159.

⁴¹ Thomas Brinton: *The Sermons of Thomas Brinton, Bishop of Rochester (1373-1389)*, ed. Sister Mary Aquinas Davlin, Camden 3rd Series 85-86 (London 1954) 30-31, 71; cf. *De proprietatibus rerum* 12.2 and 17.23 (Frankfurt 1601, rpt. 1964) 540, 808-09. Thomas Wimbeldon: Nancy H. Owen, "Thomas Wimbeldon's Sermon, 'Redde rationam villicacionis tue'," *Mediaeval Studies* 28 (1966) 185-86; cf. *De proprietatibus rerum* 12.5, 27, and 26, *ed. cit.*, 524, 543, and 542. Further see Seymour, "Medieval English Owners" (as in n.32) 164 and A.S.G. Edwards, "Bartholomaeus Anglicus' *De proprietatibus rerum* and Medieval English Literature," *Archiv* 222 (1985) 121-28, here citing 122. Even before that, during Bartholomaeus' lifetime, Berthold von Regensburg, also a Franciscan, was using the *De proprietatibus rerum* in his sermons. See M.C. Seymour et al., *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot, Hampshire 1992) 33-34.

⁴² See Richard H. Rouse and Mary A. Rouse, *Preachers, Florilegia and Sermons: Studies on the Manipulus florum of Thomas of Ireland* (Toronto 1979) 43, 48; Denifle and Chatelain, *Chartularium* (as in n.38) 2.692. I am grateful to Juris Lidaka for these citations and for access to his unpublished lecture, "Don't You Really Need a Fine Encyclopedia? What People Did With Bartholomaeus Anglicus' *De proprietatibus rerum*."

morality and personal spiritual improvement.

A small *caveat* about the use of encyclopaedias by preachers has to do with the fact that encyclopaedias were glossed, adapted, or extracted into *libri exemplorum*. Recently Jacques Berlioz and Marie-Anne Polo de Beaulieu showed that four encyclopaedias stand out as the main sources of *exempla* in *libri exemplorum*: those of Alexander Neckam, Bartholomaeus Anglicus, Thomas of Cantimpré, and Vincent of Beauvais.⁴³ We also know that about two-thirds of the Latin manuscripts of Bartholomaeus' *De proprietatibus rerum* were glossed in order to make the moralisations, allegorisations, and other information more easily searchable. There is evidence that these glosses have their own textual history and they seem not to appear in vernacular translations or printed editions.⁴⁴ These glosses were incorporated into the two adaptations of the *De proprietatibus rerum* made by Marco of Orvieto and Pierre Bersuire. Marco's *Liber de moralitatibus* is a Franciscan preacher's manual compiled in about 1290 out of selections from Bartholomaeus. Marco's adaptation of the *De proprietatibus rerum* is thus part of the larger effort by the mendicants to create searchable reference works for preachers.⁴⁵ Nicholas Bozon's *Contes moralisées*, an exemplum collection written in Anglo-Norman French in about 1320, uses the *De proprietatibus rerum* as its only medieval source.⁴⁶ Given the apparent need for collections such as these, one wonders just to what extent the so-called "preacher's encyclopaedias" were directly used for sermon production, and to what extent they were rather the sources for the true preaching aids. It seems, however, that the Paris *taxationes* mark

⁴³ Jacques Berlioz and Marie-Anne Polo de Beaulieu, "Les recueils d'exempla et la diffusion de l'encyclopédisme médiévale," in: Michelangelo Picone (ed.), *L'enciclopedia medievale*, Memoria del tempo 1 (Ravenna 1994) 179-212. I would suggest that the *De natura rerum* on the 1275 Paris *taxatio* is probably Alexander Neckam's.

⁴⁴ Heinz Meyer, "Bartholomaeus Anglicus, 'De proprietatibus rerum': Selbstverständnis und Rezeption," *ZdA* 117 (1988) 237-74, here citing 246-55.

⁴⁵ See John B. Friedman, "Peacocks and Preachers: Analytic Technique in Marcus of Orvieto's *Liber de moralitatibus*, Vatican lat. ms. 5935," in: *Beasts and Birds of the Middle Ages: The Bestiary and Its Legacy*, ed. Willene B. Clark and Meredith McMunn, Middle Ages Series (Philadelphia 1989) 179-96.

⁴⁶ B. van den Abeele, "L'exemplum et le monde animal. Le cas des oiseaux chez Nicole Bozon," *Le Moyen Age* 94 (1988) 51-72.

the beginning of the second phase of encyclopaedia use—encyclopaedia as source-book for preachers.

3. ENCYCLOPAEDIAS IN RELIGIOUS HOUSES, THIRTEENTH-FIFTEENTH CENTURIES

The monastic and cathedral schools continued to exist alongside the universities and the public schools that developed later. However, what can be said about the use of encyclopaedias in the later monastic and cathedral schools must be conjectural. We know much more about the didascalical use of encyclopaedias in the Carolingian period than we know about their use afterwards, because more work has been done on the relatively smaller number of pre-twelfth-century manuscripts than on the much larger number of post-twelfth-century manuscripts. And this is despite the fact that education in England has been given excellent coverage in the studies of William Courtenay, Kathleen Edwards, Nicholas Orme, and others.⁴⁷

The limitations of a study based solely on surviving manuscripts are obvious just from the adjective “surviving,” especially with school-texts, which must have worn out sooner than most other books. This problem is complicated by the mass destruction of manuscripts in England during the dissolution of the monasteries under Henry VIII.⁴⁸ We can see the effects just by looking at the manuscripts of Bede’s *De natura rerum*. Charles W. Jones counts 134 surviving manuscripts in the preface to his edition (1975).

⁴⁷ William J. Courtenay, *Schools and Scholars in Fourteenth-Century England* (Princeton 1987); Kathleen Edwards, *The English Secular Cathedrals in the Middle Ages*, 2nd ed. (Manchester 1967); Nicholas Orme, “Schoolmasters, 1307-1509,” in: *Profession, Vocation, and Culture in Later Medieval England*, ed. C.H. Clough (Liverpool 1982) 218-41; Orme, *Education in the West of England, 1066-1548* (Exeter 1976); Orme, *English Schools in the Middle Ages* (London 1973). The religious houses are listed and briefly described in David Knowles and R. Neville Hadcock, *Medieval Religious Houses: England and Wales* (London 1971). Libraries in religious houses are surveyed by Helmut Gneuss, “Englands Bibliotheken im Mittelalter und ihr Untergang,” in: *Festschrift für Walter Hübner*, ed. Dieter Riesner and Helmut Gneuss (Berlin 1964) 91-121.

⁴⁸ On the impact of the Dissolution see N.R. Ker, “The Migration of Manuscripts from English Medieval Libraries,” in *Books, Collectors, and Libraries* (as in n.36) 301-20; originally printed in *The Library* 4th ser. 23 (1942-3) 1-11.

Traceable manuscripts come from all over Europe, with 30 from France, 11 from Germany, 8 from England, 6 or 7 from Switzerland, 4 from Italy, 2 from Spain, and 5 from all other places combined.⁴⁹ Bede's popularity in France, Germany, and Switzerland can be explained partly by his use in the curriculum devised by Alcuin at the request of Charlemagne. On the other hand, the relative dearth of Bede manuscripts in England is due at least partly to the dissolution.

Surviving booklists give us some contact with the lost manuscripts of medieval England. Libraries tended to be built around the educational programs of the religious orders, and therefore selective, so that we can attempt some inferences about readership on the basis of libraries. But lest we be overly optimistic, there were 130 Cistercian abbeys and priories in England but catalogues survive only from Flaxley, Meaux, and Rievaulx. There were about 50 Premonstratensian houses, but catalogues survive only from Bradsole, Titchfield, and Welbeck. There were about 25 Gilbertine houses, from which no catalogues survive—in fact, only 15 manuscripts have been traced back to only five Gilbertine houses.⁵⁰ The picture of the friars' libraries is likewise mostly incomplete. K.W. Humphreys observes, "Only York for the Austin hermits and Hulne for the Carmelites offer a reasonable picture of a complete library."⁵¹ The catalogues are one-time affairs, and so they can tell us about the state of the holdings for only the approximate time of the catalogue; and many catalogues are undated. There are few booklists and no true catalogues from before 1100. For most religious houses, the only picture of the library is afforded by bequests, borrowing lists, and the like. Ninety houses were catalogued in the *Registrum anglie de libris doctorum et auctorum veterum*, which Richard and Mary Rouse call "an early fourteenth-century union catalogue of books in England, Scotland, and Wales, compiled by

⁴⁹ My count of the manuscripts is based on the list in Jones, *Opera didascalica*, 1 (as in n.22).

⁵⁰ David N. Bell, *The Libraries of the Cistercians, Gilbertines, and Premonstratensians*, Corpus of British Medieval Library Catalogues 3 (London 1992) xxiii.

⁵¹ K.W. Humphreys, *The Friars' Libraries*, Corpus of British Medieval Library Catalogues 1 (London 1990) xv.

the Oxford Franciscans on the basis of on-site surveys.”⁵² The holdings of many libraries are attested only in the survey done for Henry VIII in the 1530s and 40s by John Leland, an antiquary whom Henry appointed to list all the antiquities of the realm. However, both the *Registrum anglie* and Leland’s survey are known to be incomplete.

An abbey might keep books in several places—usually service books were kept in the choir, with devotional books in the refectory and infirmary, and other books in the *armarium* or in the library. Surviving booklists usually do not indicate where books were kept, or the shelf-mark of the books. Only catalogues, of which there are few, group the books in any organised fashion. At this time, there is not enough evidence from these booklists and from surviving manuscripts to say much about what the distribution of encyclopaedias among the religious houses means. We would like to know, for instance, how the selection of books reflects the aims of the religious orders, of the houses where the books were kept, of the administrators who supervised acquisition, and of the donors who provided books that were not purchased outright.

What N.R. Ker once wrote with regard to the cathedral libraries applies as well to the other religious houses:

All these libraries had a common stock of twelfth-century and early thirteenth-century manuscripts, some more and some less of them, but the same in kind. This stock was added to later, but very unequally. Acquisitions were nearly all by gifts. In the monastic cathedrals the donors were the monks and they were particularly active in getting books in the late thirteenth century and in the fourteenth century. In the secular cathedrals the canons were free to dispose of their books as they liked, and until about 1400 not many of them seem to have passed them on to their cathedral libraries.⁵³

⁵² *Registrum Anglie de libris doctorum et auctorum ueterum*, ed. R.A.B. Mynors, Richard H. Rouse, and Mary A. Rouse, *Corpus of British Medieval Library Catalogues* 2 (London 1991) xiii.

⁵³ N.R. Ker, “Cathedral Libraries,” in: *Books, Collectors, and Libraries* (as in n.36) 293-300, here citing 294; originally published in *Library History* 1 (1967) 38-45. Thus, for example, the three medieval catalogues of Lincoln Cathedral, a secular cathedral, yield only an *Etymologiae*, an *Elucidarium*, and a *De proprietatibus rerum* among them: see Reginald Maxwell Woolley, *Catalogue of the Manuscripts of Lincoln Cathedral Chapter Library* (Oxford 1927) vi (catalogue of Chancellor Hamo, c.1150), ix (booklist of c.1220), xiii (fifteenth-century catalogue of

The encyclopaedias found in the libraries of religious houses are vastly outnumbered by patristic texts, saints' lives, service-books, and bibles. When it is possible to connect an encyclopaedia from a medieval catalogue with a surviving manuscript, the manuscript is nearly always from the twelfth century or later, meaning perhaps that the books were being used often enough that they had to be replaced with fresh copies. The encyclopaedia found most often is the mainstay of the pre-twelfth-century monastic and cathedral schools—Isidore's *Etymologiae*. Isidore's *De natura rerum*, Rabanus' *De naturis rerum*, and to a lesser extent Bede's *De natura rerum* are still very much in evidence. In about equal numbers to these are Honorius Augustodunensis' *Elucidarium* and *Imago mundi*, Alexander Neckam's *De naturis rerum*, and Bartholomaeus Anglicus' *De proprietatibus rerum*. Scattered here and there will be one or two copies of the *Secretum secretorum*, Hugo de Folieto's *De bestiis et aliis rebus*, Hugutio Pisanus' *Liber derivationum*, Brunetto Latini's *Trésor*, or Vincent of Beauvais' *Speculum historiale*.

One of the larger libraries was that of the Augustinians (Austins) in York. Its well-stocked library held 646 books at the time of the catalogue made in 1372. The catalogue arranged the books by subject, and it listed an unusual number and variety of encyclopaedias. There were two copies of Isidore's *Etymologiae* and a set of tables for searching the text. One copy, listed under the subject-heading *Originalia*, suggests how the *Etymologiae* continued the Carolingian curriculum, as it was bound with a Pseudo-Boethian *De disciplina scholarum* and William Brito's *Expositio vocabulorum Biblie*. The second copy, bound incongruously with the *Apocalypsis Goliae*, is in a section of books bequeathed by Master John Erghom of the friary. The tables to the *Etymologiae* are in a section devoted to Erghom's tables for the Decretals, *Sentences*, the Bible, and the letters of Seneca, which suggests that Erghom made the tables himself.⁵⁴ The catalogue lists one copy of

109 books). Norwich, a monastic cathedral, had two copies of Vincent's *Speculum historiale*, an *Etymologiae*, and Hugo de Folieto's *De bestiis*: see N.R. Ker, "Medieval Manuscripts from Norwich Cathedral Priory," in: *Books Collectors, and Libraries* (as in n.36) 243-72, here citing 256, 257, 258.

⁵⁴ Humphreys, *Friars' Libraries* (as in n.51) A8.96a, A.8125b, A8.248d.

Alexander Neckam's *De naturis rerum* under the subject-heading *Philosophia*.⁵⁵ Also under this heading was a copy of the *De ordine creaturarum* bound in a miscellany, with another copy under *Astronomia et astrologia*, bound together with Bede's *De temporibus* and attributed to Bede.⁵⁶ This is precisely where it would have fit in the Carolingian curriculum. Under *Philosophia*, Honorius' *Imago mundi* is bound together with Rabanus' *De naturis rerum*.⁵⁷ One other copy of Rabanus is under the same heading,⁵⁸ and another copy of the *Imago mundi*, attributed as sometimes happens to one *Henricus*,⁵⁹ is in a mathematical and scientific miscellany under the subject-heading *Auctores et philosophi extranei*. Honorius' *Elucidarium* was under the subject-heading *Summe morales doctorum et sermones* bound in a manuscript with a treatise on the canon of the mass.⁶⁰ There were four copies of Bartholomaeus Anglicus' *De proprietatibus rerum*, with two listed under the heading *Philosophia*, and one each under the headings *Sermones et materie sermonum*, and *Summe morales doctorum et sermones*.⁶¹ This catalogue thus illustrates two or three uses to which the *De proprietatibus rerum* might be put. The copy listed as material for sermons is identified as an excerpt, although it does not say of which section, but it was bound together with *exempla* by Jacques de Vitry, a lapidary, an *ars dictaminis*, and sermons by Bernard of Clairvaux. This occurrence illustrates the tendency of late medieval readers to copy out only the parts of a book they wanted. Finally, York also held a copy of Vincent of Beauvais' *Speculum historiale*, listed under the heading *Hystorie et cronice*.⁶² Typically, we find the *Historiale* separate from the other parts of the *Speculum maius*, and used apparently as a stand-alone, without reference to them.

The three Cistercian houses that have catalogues, Flaxley,

⁵⁵ Humphreys, *Friars' Libraries* (as in n.51) A8.334.

⁵⁶ Humphreys, *Friars' Libraries* (as in n.51) A8.289e, A8.365b.

⁵⁷ Humphreys, *Friars' Libraries* (as in n.51) A8.292a.

⁵⁸ Humphreys, *Friars' Libraries* (as in n.51) A.8284a, bound with Gregory's homilies on Ezechiel and his *Cura pastoralis*.

⁵⁹ Humphreys, *Friars' Libraries* (as in n.51) A8.455l.

⁶⁰ Humphreys, *Friars' Libraries* (as in n.51) A8.612b.

⁶¹ Humphreys, *Friars' Libraries* (as in n.51) A8.285a, A8.286, A8.594a, A8.599d.

⁶² Humphreys, *Friars' Libraries* (as in n.51) A8.546-8.

Meaux, and Rievaulx, classify their encyclopaedias either by author—when it is Isidore—or under the heading *libri mixti diversis*. The Cistercians and Premonstratensians as a whole have many fewer encyclopaedias than the Franciscans and Dominicans, and except for two copies each of Honorius' two encyclopaedias at Meaux, Rievaulx, Bradsole, and Titchfield,⁶³ their holdings in encyclopaedias are limited mainly to the *Etymologiae*. Other books can be partly filled in from surviving manuscripts; for example the Cistercian houses at Byland, Sawley, and Kirkstead also owned the *Imago mundi*—the Sawley copy, now Cambridge, Corpus Christi College 66, being famous for its *mappa mundi*.⁶⁴ Sawley also owned a rare—for England—copy of Thomas of Cantimpré's *De naturis rerum* now in the British Library; and Kirkstead also owned a two-volume copy of Rabanus' *De rerum naturis* now in the Cambridge University Library.⁶⁵ The Cistercian and Premonstratensian libraries are very conservative, with most of their authors coming from before the twelfth century, and most of the books are aimed towards *lectio divina*. Law, science, medicine, and philosophy, which are well represented in some of the friars' libraries, are at a minimum. But again, because so often the books have not survived and because we must presume the curriculum, one can only conjecture whether and how these encyclopaedias might have been used as teaching texts.

There were also some large Benedictine libraries, such as Glastonbury, Ramsey, and Bury St. Edmunds, which with its approximately 3100-volume library at the end of the Middle Ages was England's largest.⁶⁶ As with the Cistercians and Premonstratensians, the selection of encyclopaedias in these Benedictine libraries is conservative, limited to the Carolingian corpus, with the exception of Bartholomaeus' *De proprietatibus rerum*. But again, rec-

⁶³ Bell, *Cistercians* (as in n.50) Z7.41, Z14.284d, Z19.224a, P2.47a, P6.60i. Titchfield's Bede (P6.165e) is classed "N.V.," "N." being the class of *libri mixti diuersis* (sic).

⁶⁴ Bell, *An Index of Authors and Works in Cistercian Libraries in Great Britain*, Cistercian Studies 130 (Kalamazoo 1992): see entry for each house.

⁶⁵ Bell, *Index* (as in n.64): see entry for each house.

⁶⁶ *English Benedictine Libraries: The Shorter Catalogues*, ed. R. Sharpe, J.P. Carley, R.M. Thomson, and A.G. Watson, Corpus of British Medieval Library Catalogues 4 (London 1996) 45.

ords are scanty. For the 62 houses surveyed in the latest volume of the Corpus of British Medieval Library Catalogues, only 18 have any kind of booklist from before 1500. For another 18, John Leland's survey is the only record of the books.

The best-documented Benedictine libraries are those of Canterbury's two great institutions, Christ Church Cathedral and St. Augustine's Abbey. The catalogue of Christ Church done in 1170 of 223 books appears to be a list of books for the arts curriculum. Its first group of books (items 1-168), by far the largest, includes grammar, rhetoric, arithmetic, music, philosophy, and Latin classical authors. Group two (items 169-77) includes astrology and the computus. Groups three and six (items 178-80, 219-23) appear to be miscellanies, while group four (items 181-98) is for Biblical study and theology, and group five (items 199-218) is for the new Aristotelian science. The 1170 catalogue lists only Honorius' encyclopaedias: the *Imago mundi* appears in group two, bound with a computus, and the *Elucidarium* appears in group four.⁶⁷ The 1330 catalogue done under Prior Henry of Eastry (prior, 1284-1331) contains 1831 books. This catalogue was divided into two *demonstrationes*, the second of which was irregularly subdivided into *distinctiones*. The first *demonstratio* appears to represent the library of the 1170 catalogue, with some additions and deletions, while the second contains books classified by donor, roughly in chronological order from Thomas Becket down to the early fourteenth century. However, despite its size, the 1330 catalogue bears out the notion that Benedictine libraries focus on the earlier encyclopaedias, for it contains those of Alexander Neckam (3 copies), Honorius (2 copies of the *Imago mundi* from recent bequests; 1 *Elucidarium*, probably the same as in the 1170 catalogue), Isidore (1 *De natura rerum*, 5 *Etymologiae*), and Rabanus Maurus (1 *De naturis rerum*).⁶⁸ Of these, only two *Etymologiae* are listed among the 37 books kept in the cloister library (*de armariolo claustrī*),

⁶⁷ James, *Ancient Libraries* (as in n.34) 11, items 175 and 181. The 1170 catalogue is now Cambridge University Library li.3.12.

⁶⁸ James, *Ancient Libraries* (as in n.34) 41 item 219, 49 item 286, 51 items 342 and 343, 63 item 531, 77 item 708, 78 item 711, 79 item 732, 80 item 738, 102 item 1106, 125 item 1479, 139 item 1726. This catalogue is now London, BL Cotton Galba E.iv, fols. 128-47.

and of the total 13 encyclopaedias, 8 came to Christ Church via the monks who bequeathed them.⁶⁹ In 1524, the monks donated 292 of their books to Canterbury College, Oxford, for the use of Canterbury monks who studied there. The list was divided into sections, and from the theology section came three copies of the *Etymologiae*, identified as *libri reperti in libraria*.⁷⁰ This donation would imply that the *Etymologiae* was needed for some purpose at Oxford, but as we saw earlier, it is not clear how the *Etymologiae* supported university education.

The situation at St. Augustine's is strikingly different from that at Christ Church, because the presence not only of Bede's *De natura rerum* and Bartholomaeus' *De proprietatibus rerum*, but also of the Pseudo-Aristotelian *Secreta secretorum* and of Brunetto Latini's *Trésor* gives St. Augustine's the breadth and the secular character of a large friars' library such as York. The most important record of the library besides the tenth-century booklist mentioned earlier (above, around n. 14) is a late fifteenth-century catalogue of 1837 books listing Neckam (1 copy), the *Secretum secretorum* (1 copy), Bartholomaeus (2 copies), Bede (2 copies), the *Trésor* (1, possibly 2 copies), *Elucidarium* (4 copies), *Etymologiae* (6 complete copies, 3 sets of extracts), Isidore's *De natura rerum* (3 copies), and Rabanus Maurus (2 copies).⁷¹ Often, copies of the same books are grouped together, and as is the case in other libraries, the encyclopaedias are sometimes bound with texts for related use: for example, an *Elucidarium* bound with theological texts, and Bede's *De natura rerum* bound with astronomical or computistical texts.⁷² One section of the catalogue, however, groups together Bartholo-

⁶⁹ James, *Ancient Libraries* (as in n.34) 51 items 342 and 343 (*libri de armariolo claustrî*); 63 item 531 (*Etymologiae*), 125 item 1479 (*Etymologiae*, "imperfectus"), 139 item 1726 (*Etymologiae*), 77 item 708 (Neckam), 80 item 738 (Neckam), 102 item 1106 (Neckam), 78 item 711 (*Imago mundi*), 79 item 732 (*Imago mundi*).

⁷⁰ See above, n.34. Perhaps 191 of the books in this donation came from the library proper; none of the 39 indicated as chained books were encyclopaedias.

⁷¹ James, *Ancient Libraries* (as in n.34), 235 item 418, 236 item 427, 236-37 items 428-33, 237 items 434-35, 237 item 437, 239 item 447, 240 item 453, 253 item 494, 289 item 863-64, 289 item 866, 370 item 1488-89, 371 item 1505, 372 item 1509, 376 item 1552, 385 item 1598. The catalogue is now Dublin, Trinity College 360 (Bernard 285).

⁷² James, *Ancient Libraries* (as in n.34), 237 item 437 and 239 item 447.

maeus, a *Tractatus de naturis et proprietatibus rerum* (unknown), and two parts of a *Speculum naturalis* (possibly by Vincent of Beauvais), together with Neckam, Rabanus Maurus, Isidore's and Bede's treatises *De natura rerum*, and a *De naturis rerum* attributed to *W de colchis* (=Guillaume de Conches, *Compendium philosophiae*?).⁷³ St. Augustine's is one of the few libraries whose catalogue gives a complete listing of shelf-marks, which could yield further clues to the organisation of the books, and therefore shed some light on how encyclopaedias were used in the monastery. Many fewer of St. Augustine's encyclopaedias are donations than at Christ Church, but notable among them are a *Trésor* donated by "Salamon de Ripple" and a *Secretum secretorum* donated by "Radulpus Gatewyk."⁷⁴

4. PRIVATE OWNERSHIP AND ORIGINAL USE

The number of bequests to religious houses of all kinds suggests that from about the mid-thirteenth-century bequests were the chief means of acquisition.⁷⁵ Bequests give us an indirect view of the world of private readers, lay as well as clerical. Now, finally, we have the names of readers and owners, and the third kind of reception can be observed. Robert de Popultoun, prior of the Carmelite house at Hulne, Northumberland, had donated 8 books listed in the 1366 and 1433 inventories of the Hulne library, and one was Bartholomaeus Anglicus' *De proprietatibus rerum*.⁷⁶ One of the most interesting bequests was made to Westminster Abbey by Cardinal Simon Langham. Langham was abbot of Westminster from 1349-62, and after a career in royal and ecclesiastical government, he joined the papal curia in 1369, moving to Avignon in 1370, where he died in 1376. He took his books with him to Avignon, and at his death the prior of Westminster had to go to Avignon and arrange for shipping the books to England, which also involved setting a value on the books. Langham owned only one encyclopaedia, a *De pro-*

⁷³ James, *Ancient Libraries* (as in n.34) 289 items 864-68.

⁷⁴ James, *Ancient Libraries* (as in n.34) 371 item 1505, 385 item 1598.

⁷⁵ See Sharpe et al., *Benedictine Libraries* (as in n.66) 158.

⁷⁶ Friedman, *Northern English Books* (as in n.3) 42 and n.57, and Humphreys, *The Friars' Libraries* (as in n.51) C3.33.

prietatibus rerum, and the batch of 13 books with which it travelled was valued at 146 florins, or £438, a huge sum.

Bequests explain the presence in religious houses of encyclopaedias that were not part of the monastic *studium*. The Cistercian abbey at Bordesley in Worcestershire was given a copy of Brunetto Latini's *Trésor* by Guy de Beauchamp, Earl of Warwick, in a bequest of 27 books in French, mostly religious texts, dated May 1, 1306. The earl was buried in the abbey at his death in 1315, and so one wonders if the bequest wasn't a *quid pro quo*. It is not even clear whether the abbey kept the books or sold them to raise money.⁷⁷ The *Trésor* was written for *homo politicus*, which the Earl certainly was. Warwick was a colourful figure—Piers Gaveston, against whom Edward I had warned Warwick on his deathbed, called him the “black cur of Arden.” A loyal retainer of Edward's in the wars against the Scots, Warwick turned against Edward II on account of the sodomitical Gaveston, and he was instrumental in Gaveston's final capture and beheading.⁷⁸

On the other hand, bequests could just as easily provide redundant—or even recycled—copies of the classic encyclopaedias. Owen Lloyd, a fifteenth-century Welsh canon, left 30-odd books to the library of Hereford Cathedral, most of which survive, and two of which were copies of encyclopaedias that were already 100 years old when he acquired them. His copy of Bartholomaeus Anglicus, obtained from Leominster, is now MS. O.V.15 (s.xiv in.). His fourteenth-century copy of excerpts from Book XII of Isidore's *Etymologiae*, now MS. O.III.11 (s.xiii, xiv in.), was procured perhaps from the Dominican convent at Oxford and bound with theological and preaching texts, illustrating the common practice of using only extracts of an encyclopaedia.⁷⁹

Large bequests are rare, but they may reveal something about the status of the older encyclopaedias that turn up in bequests left

⁷⁷ Bell, *Cistercians* (as in n.50) Z2.1; see also Bell, *Index* (as in n.64) “Bordesley,” and Bell, “Lists and Records of Books in English Cistercian Libraries,” *Analecta Cisterciensia* 43 (1987) 181-222, item I, c, 1.

⁷⁸ See the entry on Beauchamp by John Horace Round in *The Dictionary of National Biography*, ed. Leslie Stephen and Sidney Lee (London 1921-22; rpt. 1949-50) 2:28.

⁷⁹ R.A.B. Mynors and R.M. Thomson, *Catalogue of the Manuscripts of Hereford Cathedral Library* (Cambridge 1993) 38, 23; brief biography of Lloyd, xxiii.

by members of religious houses. John Erghom, mentioned earlier in connection with a copy of Isidore's *Etymologiae* at the Augustinian abbey in York, may have been the author of the commentary section of the notorious *Prophecy of John of Bridlington*.⁸⁰ The prophecy consists of a 600-line Latin poem and a long-winded prose commentary lamenting the moral state of England under Edwards II and III and prophesying events into the early fifteenth century. So treasonous was it that in 1402 Henry IV hanged a friar for quoting it.⁸¹ John Erghom came from an old Yorkshire family with connections to the Percys. He studied at Oxford, went back home to Yorkshire to the Augustinian abbey, signed the 1372 library catalogue as a witness, and became prior of the abbey in 1385. Thereafter he became a master in Naples.

Erghom had what must have been one of the largest private libraries in England, for his donation to the abbey totalled over 200 of the 646 books in the 1372 catalogue, among which was a collection of prophecies and occult literature, as well as bibles, *originalia*, questions and quodlibets, natural philosophy, astronomy, civil and canon law, classical literature, rhetoric, medicine, sermons and preaching tools, arithmetic, music, and geometry.⁸² He also left a collection of astrological instruments, which are labelled *venalia* in the margin of the catalogue.⁸³ Without Erghom's books the holdings of the library would have been one-third less, but the net loss of encyclopaedias would have been just the one *Etymologiae* bound with the *Apocalypsis Goliae*. It seems odd that for all his books, Erghom had only that one encyclopaedia. But it is not odd that the abbey that housed this remarkable man would also have such a rich collection of other encyclopaedias, since the collection as a whole

⁸⁰ See Michael J. Curley, "The Cloak of Anonymity and the Prophecy of John of Bridlington," *MP* 77 (1980) 361-69, here citing 366. See also John B. Friedman, *John de Foxton's Liber Cosmographie (1408): An Edition and Codicological Study*, Brill's Studies in Intellectual History 5 (Leiden 1988) xvii-xxi. For the view that Erghom = Bridlington, see Paul Meyvaert, "John Erghome and the *Vaticinium Roberti Bridlington*," *Speculum* 41 (1966) 656-64. This view has been disposed of by A.G. Rigg, "John of Bridlington's Prophecy: A New Look," *Speculum* 63 (1988) 596-613.

⁸¹ Curley, "Cloak of Anonymity" (as in n.80) 361 n.1 and sources cited therein.

⁸² Humphreys, *Friars' Libraries* (as in n.51) A8 passim.

⁸³ Humphreys, *Friars' Libraries* (as in n.51) 101.

was broad as well as deep. All of the categories represented by Erghom's books were represented by other books in the library.

Being able to identify the owner of a book is certainly interesting, but what does it mean? John Erghom's ownership of one copy of the *Etymologiae* pales besides his ownership of a collection on the occult. If Erghom's bequest had listed only one book we might be tempted to believe that it was his only book, his pearl of great price. But there is no reason to assume that bequests are inventories of a person's entire collection. Wills pose the same problem, since they do not necessarily list a person's entire possessions—only those for which there is a need to specify an intention. This means, though, that if a book is named in a will, it is valuable. An expensive book is obviously a prized possession, and sometimes a will even tells us its monetary value.

The pearl of great price among medieval encyclopaedias would thus have to be Bartholomaeus' *De proprietatibus rerum*. M.C. Seymour's study of English owners of the *De proprietatibus rerum* shows 26 wills from the fourteenth through sixteenth centuries that name the book. The value set upon the book is not always specified, but when it is, the amount ranges from 10 shillings to about 50 shillings. This latter book had also been used to secure a loan that had been witnessed by fifteen men.⁸⁴ The earliest copy of the *De proprietatibus rerum* to which we can attach a monetary value is one which Peter of Limoges bought from the Paris stationer. At the end of his copy of John of Hautville's *Architrenius* (now Vatican Reg. lat. 1554, fol. 166v), Peter wrote this note: "I paid William of Sens for a *proprietatibus rerum*, part two of Thomas' *Summa*, and a *Contra gentiles*" [*Solui Willelmo sen. pro proprietatibus rerum, 2. parte summe thome et contra gentiles*]. All three of these books appear on both the 1275 and 1304 *taxationes*. Peter eventually left this copy of the *De proprietatibus rerum* to the Sorbonne at his death in 1304, whereupon it was chained in the chapel at the Sorbonne,⁸⁵ and it is now Paris, BN lat. 16099.⁸⁶ In Peter's note, a line

⁸⁴ Seymour, "English Owners" (as in n.32) 161.

⁸⁵ M.C. Seymour, "Some Medieval French Readers of *De proprietatibus rerum*," *Scriptorium* 28 (1974) 101—this manuscript is now Paris, BN fr. 10699.

⁸⁶ M.C. Seymour, "Medieval French Readers" (as in n.85) 101. Another copy was bequeathed to the Sorbonne by Master Godfridus de Fontibus (d. 1306).

connects the book titles to some figures per *pecia*, by which the Rouses have estimated that just for the copying, not including parchment, Peter paid between 200 and 500 *solidi* (*sous*) for his *De proprietatibus rerum*.⁸⁷

Most of the British owners of Bartholomaeus' encyclopaedia listed by Seymour were canons, teachers, abbots—in other words, people attached to institutions where the use of the encyclopaedia would fit the teaching and preaching paradigms sketched out earlier in this essay. But some owners were secular. Sir John Fastolf listed a copy of the French version in his library in 1450, and in 1482 a copy of the French version was made for King Edward IV at Bruges.⁸⁸ The preference of these two men for the French version is not surprising given their status as nobles. Jean de Corbichon, the French translator, wrote this version in 1372 for Charles V with the advice that a prince ought to know the world he rules.⁸⁹ Edward IV was a ruler, of course, but Fastolf had princely pretensions—at the time he inventoried his library he had just built himself a palace whose buildings covered five acres.⁹⁰

The period of private ownership is also the period of original use, unassociated with education or with preaching. In the fourteenth century, we begin to see the third use for encyclopaedias as literary authors begin to mine them for facts and images. The practice is essentially the same as that of the preachers, who borrowed morally neutral information to which they attached a moral interpretation. The practice of lifting passages in turn goes back to the schools, where encyclopaedias could be used in extract form. Now, the extract is appropriated from the encyclopaedia and used neither

⁸⁷ Rouse and Rouse, "Book Trade" (as in n.38) 59, 68-69. This amount would seem to fall between about £3 and £7: Peter Spufford, with the assistance of Wendy Wilkinson and Sarah Tolley, *Handbook of Medieval Exchange*, Royal Historical Society Guides and Handbooks 13 (London 1986) 209.

⁸⁸ *On the Properties of Things: John Trevisa's Translation of Bartholomaeus Anglicus De proprietatibus rerum: A Critical Text*, ed. M.C. Seymour et al., 3 vols. (Oxford 1975-88) 3.10.

⁸⁹ See Donal Byrne, "Rex imago dei: Charles V of France and the *Livre des propriétés des choses*," *Journal of Medieval History* 7 (1981) 97-113, esp. 100-103.

⁹⁰ See the entry on Fastolf by Sidney Lee in the *Dictionary of National Biography* (as in n.78) 6.1099-1104.

for *lectio divina* nor for a sermon, but for an original literary narrative.

The two encyclopaedias used this way in England were Vincent's *Speculum* and Bartholomaeus' *De proprietatibus rerum*. Vincent's encyclopaedia is used much less often than Bartholomaeus', but it is used by prominent writers.⁹¹ We have already seen that the *Historiale* is the section of the *Speculum maius* found in library catalogues. As Gerrit Bunt has noted, the *Speculum historiale* "not only contains one of the most elaborate chronicle accounts of Alexander that we possess, it was also among the most influential historical compilations."⁹² Ranulph Higden's 1362 version of the *Polychronicon* takes its Alexander legend from Vincent. Higden was then translated into English by John Trevisa (1385-87) and then again by an anonymous writer in the fifteenth century.⁹³ However, the rest of the *Speculum maius* was evidently somehow available. In the 1930s, 40s and 50s, Pauline Aiken wrote a series of articles on Chaucer's use of all three of the authentic parts of the *Speculum maius*. For example, Chaucer drew historical information (e.g., on ancient figures such as Caesar and Cleopatra, for the *Monk's Tale* and *Legend of Good Women*) from the *Historiale*,

⁹¹ The recent collection of essays on the reception of Vincent does not cover his reception in England: Vincent de Beauvais: *Intentions et réceptions d'une œuvre encyclopédique au Moyen-Âge. Actes du XIVe Colloque de l'Institut d'études médiévales, organisé conjointement par l'Atelier Vincent de Beauvais (A.R.Te.M., Université de Nancy II) et l'institut d'études médiévales (Université de Montréal) 27-30 avril 1988*, ed. Serge Lusignan, Monique Paulmier-Foucart, and Alain Nadeau, Cahiers d'Études Médiévales, Cahier Spécial 4 (Saint-Laurent / Paris 1990).

⁹² G.H.V. Bunt, "Alexander and the Universal Chronicle: Scholars and Translators," in: *The Medieval Alexander Legend and Romance Epic: Essays in Honour of David J.A. Ross*, ed. Peter Noble, Lucie Polak, and Claire Isoz (Millwood, NY / London / Nendeln 1983) 1.

⁹³ See G.H.V. Bunt, "The Story of Alexander the Great in the Middle English Translations of Higden's Polychronicon," in: *Vincent of Beauvais and Alexander the Great: Studies on the Speculum Maius and its Translations Into Medieval Vernaculars*, ed. W.J. Aerts, E.R. Smits, and J.B. Voorbij, Mediaevalia Groningana 7 (Groningen 1986) 127-40. This is an excellent collection of essays edited by the Groningen research group whose studies of the *Historiale*'s reception in Dutch and German translation also bear out Bunt's observation. The reception of Vincent in southern France is studied in Serge Lusignan, *The Reception of Vincent of Beauvais in Langue d'oïl*, *Questio de rerum natura* 3 (Winnipeg 1989).

medical information (e.g., for Arcite's illness in the *Knight's Tale*) from the *Doctrinale*, and proverbial lore (Chanticleer's *mulier est hominis confusio* in the *Nun's Priest's Tale* 4354) probably from the *Naturale*.⁹⁴

Bartholomaeus Anglicus makes his way into vernacular religious works of the fourteenth century, such as John Waldeby's treatise on the *Ave Maria*, Richard Lavynham's *Litil Tretis on the Seven Deadly Sins*, and the anonymous *Pricke of Conscience*. In the fifteenth century the prose dialogue *Dives et Pauper*, Thomas of Walsingham's *Historia magna principis Alexandri*, and the *Court of Sapience* all cite and borrow from Bartholomaeus, sometimes calling him the "Master of Properties" or "The Master of Nature."⁹⁵ In the *Court of Sapience*, the author plundered Bartholomaeus' list of authorities so that Dame Science and Dame Logic could name drop in their conversation.⁹⁶

In England the *De proprietatibus rerum* was also an authority on medical, astrological, and historical knowledge through the sixteenth century.⁹⁷ For example, as Vincent's *Speculum* had been a source for the French original, the *De proprietatibus rerum* influenced Middle English versions of *Mandeville's Travels*, as well as the *Polychronicon* of Ranulph Higden, who took it as the basis for several chapters.⁹⁸ It is also a source for three English heraldic

⁹⁴ See, in this order: "Vincent of Beauvais and Chaucer's *Monk's Tale*," *Speculum* 17 (1942) 56-68; "Chaucer's *Legend of Cleopatra* and the *Speculum Historiale*," *Speculum* 13 (1938) 232-36; "Arcite's Illness and Vincent of Beauvais," *PMLA* 51 (1936) 361-69; "Vincent of Beauvais and Dame Pertelote's Knowledge of Medicine," *Speculum* 10 (1935) 281-87. Aiken's other articles on Chaucer's use of the *Speculum maius* are: "The Summoner's Malady," *SP* 33 (1936) 40-44; "Vincent of Beauvais and Chaucer's Knowledge of Alchemy," *SP* 41 (1944) 371-89; "Vincent of Beauvais and the Green Yeoman's Lecture on Demonology," *SP* 35 (1938) 1-9; "Vincent of Beauvais and the 'Houres' of Chaucer's Physician," *SP* 53 (1956) 22-24.

⁹⁵ Edwards, "Bartholomaeus" (as in n.41) 122-23, and *The Court of Sapience*, ed. Ruth Harvey, Toronto Medieval Texts and Translations 2 (Toronto 1984) ll.1189, 1256, and 1709. Harvey states that the description of wildlife and scenery on the way to Sapience's castle in the central section is all from Bartholomaeus (xxxii) and that the author plundered Bartholomaeus' list of authorities so that Dame Science and Dame Logic could name drop in ll.1674-90 and 1881-9 (xxxii).

⁹⁶ ll.1674-90 and 1881-9 in *Court of Sapience* (as in n.95) xxxii.

⁹⁷ Edwards, "Bartholomaeus" (as in n.41) 124-5.

⁹⁸ Edwards, "Bartholomaeus" (as in n.41) 125.

treatises from the fifteenth and sixteenth centuries.⁹⁹

Although it is still not certain whether Chaucer is using Bartholomaeus for his portrait of Chanticleer in the "Nun's Priest's Tale," scholars agree that Thomas Usk's *Testament of Love*, the anonymous *Mum and Sothsegger*, and John Lydgate's account of King Arthur in the *Fall of Princes* all draw from the *De proprietatibus rerum*. The civic records for the city of York in 1486 show how Bartholomaeus could be appropriated for propagandistic purposes. Here we find a notice stating that a pageant given there for King Henry VII made heavy use of red roses in accordance with the significance given it by Bartholomaeus: to wit, that all white roses bow before them because of their sovereignty.¹⁰⁰

5. CONCLUSIONS

The present study can only open up a very large subject. On certain areas, such as where encyclopaedias are found in England in the Middle Ages, we can throw a good deal of light, but most areas, such as the use of encyclopaedias in the university curriculum, remain mostly in the dark. I have outlined three kinds of reception for encyclopaedias in medieval England. In that period, encyclopaedias moved from the monastic and cathedral schools to the pulpit and outward to a varied audience of clerical and lay readers. On the basis of extant manuscripts and of medieval library catalogues, booklists, and bequests, it appears that the Carolingian encyclopaedias of Isidore, Bede, and Rabanus Maurus continued to be read in religious houses throughout the Middle Ages in England. To these we can add certain other encyclopaedias—namely, Honorius' *Elucidarium* and *Imago mundi*, Alexander Neckam's *De natura rerum*, Vincent's *Historiale*, and Bartholomaeus' *De proprietatibus rerum*. Here and there is the odd copy of a *Trésor*, a Thomas of Cantimpré, or a *Secretum secretorum*. Few libraries have large holdings, and few have more than one or two encyclopaedias. University libraries begin to acquire encyclopaedias towards the end of the Middle Ages, but whether and how they might have been used

⁹⁹ Edwards, "Bartholomaeus" (as in n.41) 126.

¹⁰⁰ Edwards, "Bartholomaeus" (as in n.41) 127. The red rose was the badge of the house of Lancaster to which Henry belonged, the white that of the rival house of York.

at the universities is unclear. For English preachers, it would seem that Bartholomaeus' encyclopaedia is a source for *exempla*, though whether *exempla* come directly from the encyclopaedia or via an intermediary *exemplum* collection based on an encyclopaedia is a matter for further study. For literary authors, both religious and secular, Bartholomaeus' encyclopaedia is far and away the encyclopaedia of choice—at least, as far as current research suggests—with Vincent's *Speculum* a distant second.

We pursue reception history in order to test our ideas about which encyclopaedias were important, influential, or popular, as well as our ideas about how they were used, against the manuscript record. The present outline is admittedly just that, but the continuation of such a study could show where texts were copied, who owned them and possibly the owners' interest in them; which texts were favoured in which locations and by whom, and something about how they were used; and ultimately—let us hope—the cultural significance of the texts we call medieval encyclopaedias.

THE EARLIEST MANUSCRIPTS OF RABANUS MAURUS'
DE RERUM NATURIS
(KARLSRUHE, BADISCHE LANDESBIBLIOTHEK, MS AUG.
68 AND VIENNA, ÖSTERREICHISCHE
NATIONALBIBLIOTHEK MS 121)

WILLIAM SCHIPPER

Rabanus Maurus' encyclopaedia *De rerum naturis* still suffers from the misconception that it is, in the words of Robert Collison and Warren Preece, "an unintelligent plagiarism of Isidore."¹ Yet the work represents what is arguably the most significant innovation in making encyclopaedias between Isidore and Vincent of Beauvais. This innovation can be seen particularly in Rabanus' arrangement of his material in which he combines encyclopaedic materials with biblical and theological explanations. He has arranged the contents broadly into two groupings: Books 1-11 focus on theological matters (God, the bible, the church, etc.); Books 12-22 focus on secular things (the world, nature, human endeavours, domestic matters, and so on). This arrangement, beginning in Book 1 with the names of God, and continuing through Book 22 with domestic drinking vessels, is entirely original with Rabanus, and to call him a mere plagiarist does him a great disservice. Indeed, the encyclopaedia represents a careful arrangement of materials, disposed in a "proper" division and relationship of the sacred and the secular, as he indicates in his prefatory letter to Louis the German. The division between sacred and secular is reflected in the earliest manuscript copies. For example, part 2 of the Reichenau copy (now in Karlsruhe), the Worms copy (now in Vienna), and MS Harley 3092 (a tenth-century copy from Cusa) all begin with Book 12 (*De terra*). Later two-volume copies, on the other hand, invariably begin with Book 11 (*De diuersitate aquarum*), suggesting that the earlier division was original with Rabanus. Of course the separation was lost with the single volume copies, beginning as early as 1026

¹ Robert L. Collison and Warren E. Preece, "Encyclopaedias and Dictionaries: Encyclopaedias." *The New Encyclopaedia Britannica*, 15th ed. *Macropaedia* (Chicago 1985) 18. 365-85, at 360.

with the sumptuously designed and illustrated Montecassino copy, and most later copies are single volume ones.

Rabanus began what he modestly calls his *opusculum* during a period of enforced idleness from official and administrative duties. He had been abbot of Fulda since 822, until 842 when he became embroiled in the dynastic struggles after the death of Louis the Pious in 840. He sided with the emperor Lothar II, and when he travelled to the emperor's camp Louis the German ordered an election to replace him. Rabanus retired to a small house on the Petersberg owned by and not far from Fulda, where he remained until he was elected archbishop of Mainz in 847. It is during this period that he started the encyclopaedia, at the personal request of Louis the German, as he suggests in the first preface. In the second preface to the work, addressed to his friend Haymo of Halberstadt, he details the genesis of *De rerum naturis*. After noting that they had, when younger and engaged in the study of subjects related to the Liberal Arts, often discussed many questions related to divine writings as well as things pertaining to the natures of things, he continues:

After divine providence had relieved me of the care of external troubles, and raised you to the office of pastoral care, I thought that I might put together in writing something pleasing and useful for Your Grace: in which you have in short form, briefly annotated, for recollection, what you formerly read copiously expounded in the fullness of many books and in the rich speech of orators.²

In the encyclopaedia he has not only included in condensed form the ideas of earlier writers on the nature of things, but has added to them "the mystical meaning of these same things, so that you [= Haymo] can always find in its place the historical and mystical explanation of everything."³ The germ of the idea had clearly been with him for some time, but its execution took place after he had left Fulda, and before his accession to the archiepiscopal see in

² *Postquam me divina providentia ab exteriorum negotiorum cura absoluit teque in pastoralis cure officium sublimavit, cogitabam, quid tuae sanctitati gratum et utile in scribendo conficere possem quo haberes ob commemorationem in paucis breuiter annotatum quod ante in multorum codicum amplitudine et facunda oratorum locutione dissertum copiose legisti.* (MS A, p. 5a; PL 111, 11D-12D)

³ *... sed etiam de mystica earundem rerum significatione ut continuatim positam inuenires hystoricam et mysticam singularum rerum expositionem* (MS A, p. 5b; PL 111, 12D).

Mainz.

In 847, after the death of Otgar, Archbishop of Mainz, Rabanus was recalled from retirement to succeed Otgar to the archiepiscopal see, almost certainly with the support of Louis the German.⁴ This is likely to have given him little further leisure time to complete the encyclopaedia, resulting in a decision to permit the book to circulate from Mainz. The work is clearly unfinished, as may be seen from some of the unfinished chapters and the way some books are divided into very short chapters. For example, Book 13, Chapter 7 (*De confragosis locis*) reads as follows:

*Confrages loca in qua undique uenti currunt ac sepe frangunt. Ut Neuius ait: In montes ubi uenti frangebant locum.*⁵

And Book 13, Chapter 22 (*De erebi profunditate*) reads simply:

*Erebus inferorum profunditas atque recessus.*⁶

These and similar short chapters really read more like notes for future expansion or definitions than full-fledged descriptions of things in the world, and leave the impression of a work still in progress. The ending of Book 22 seems abrupt as well. We know from the letter to Louis the German that Rabanus planned the work in 22 chapters, the same as the number of books in the Old Testament,⁷ but he may have had additional chapters in mind. Although the existence of an early copy in the library of the Fulda monastery (until its dispersal in the seventeenth century) might suggest otherwise, publication probably took place from the archiepiscopal scriptorium in Mainz, not from Fulda, using some of the scribes

⁴ See Mechthild Sandmann, "Hraban als Mönch, Abt und Bischoff," in: W. Böhne (ed.), *Hrabanus Maurus und seine Schule* (Fulda 1980) 13-47, at 41.

⁵ "Stricken places in which waves and winds run and strike often. As Naevius says: 'In mountains where winds struck places.'" The chapter derives entirely from from Isidore, *Etym.* 14.8.27, but Rabanus has given it the status of a separate chapter.

⁶ "Erebus' eruptions and retreats from the depths"; From Isidore, *Etym.* 14.9.6.

⁷ *Decreui hoc totum opus ut supradixi in uiginti duos libros dispertiri, sub quo numero uetus testamentum legis diuine interpretes beatus Hieronimus complexum se asseruit ex cuius interpretatione et expositione quaedam obscura in hoc opere lucidauit* (MS A, p. 2b; Migne, PL 111, 10).

Rabanus had brought with him from Fulda via the Petersberg.⁸ He published other works in a similar manner, such as the well-known deluxe copies of the *De laudibus sanctae crucis* he had made as gifts for royalty and the pope.⁹ There are a number of manuscripts from the middle of the ninth century, moreover, that show a remarkable mixture of Fulda and Mainz scribal hands at work in the same manuscript, as I shall discuss below.

Two early complete copies of the second volume of the encyclopaedia are extant, namely Karlsruhe, Badische Landesbibliothek, MS Augiensis 68 (MS A) and Vienna, Österreichische Nationalbibliothek, MS 121 (MS W).¹⁰ Manuscript W is particularly significant for the textual history of the encyclopaedia for the simple reason that it was copied in or before the year 852, some four years prior to Rabanus' death. On the final page of the manuscript is an inscription in a hand different from any of the hands that copied the text, which reads as follows:

*Anno incarnationis domini dccccli. ego berahtram indignus sacerdos hunc liber uitio scriptorum mendosum recitauit wormaciae eodem anno basilica sancti petri ibidem restaurata est.*¹¹

⁸ On the library at Fulda, see Paul Lehmann, "Die alte Klosterbibliothek Fulda und ihre Bedeutung," *Aus der Landesbibliothek Fulda* 2 (1928) 5-12; and Karl Christ, *Die Bibliothek des Klosters Fulda im 16. Jahrhundert*, Beiblatt zur Zentralblatt für Bibliothekswesen 64 (1933). On the scriptorium at Fulda see Her-rad Spilling, "Das Fuldaer Skriptorium zur Zeit des Hrabanus Maurus," in: R. Kottje and H. Zimmermann (edd.), *Hrabanus Maurus: Lehrer, Abt und Bischoff*, Akademie der Wissenschaften und der Literatur, Mainz, Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse, Einzelveröffentlichung 4 (Wiesbaden 1982) 165-181.

⁹ K. Holter (ed.) *Hrabanus Maurus, Liber de laudibus sanctae crucis*, Codices Selecti Phototypice Impressi 33 (Graz 1972). A complete facsimile of Vienna, Österr. Nationalbibl., MS lat. 652.

¹⁰ Throughout this paper I use the sigla "A" for the Augiensis copy, and "W" for the Vienna copy. MS A, with its companion volume, Augiensis 93, will form the basis for the critical edition I am preparing for Corpus Christianorum, Series Latina.

¹¹ "In the year of our Lord 852 I, 'berahtram' [i.e. 'Berhtram'], a humble priest, read this book, corrupt because of the fault of writers, at Worms; in the same year the basilica of St Peter was restored there." MS W, p.306. There is a facsimile of this inscription in Franz Unterkircher (ed.), *Die datierten Handschriften der Österreichischen Nationalbibliothek bis zum Jahre 1400*, Katalog der datierten Handschriften in lateinische Schrift in Österreich 1 (Wien 1969) 2.18.

de pulueribus et glebis terre
Puluis dictus quod uiuenti
pollatur tollitur enim eius flatu nec re-
sistit nec stare nouit sicut ait propheta
tanquam puluis quem proicit uentus a facie & terre
Eius uocatus quod lenissimus coenum est uorago
lucis & uis ex incendio dicitur Ab eo enim fit sa-
uilla quod per ignem efficitur casit. Nihil ignis est
& leba quod sit glebus puluis quoniam collectione con-
pingitur & in uno globo in terra adunatur terra
autem ligata gleba est soluta puluis. Lucum
uocatum quidam putrefactum putant quod
non sit lotum hoc est mundum. Nam omne
lucum immundus est. Soluta brax appellata
quod tibi potius uoluentur. alio fordes limae
uel aquae sunt. Puluis significat corruptio
nem humanae naturae. et leuitatem humanae
mentis. ut est illud in psalms quod de peccatore
scriptum est. & erit tanquam puluis quem pro-
icit uentus a facie & terre. puluis enim ut supra
dictum est est resolutio terre. & quia homo ter-
renus quando inflatur seductorio uento sup-
bit de soliditate terre uiuentium quasi puluis
abicitur. quia sua leuitate ad firmamentum
mundi torus tenere non potuit. leuius autem
terrenam materiam humani corporis
significat ut est illud. formauit igitur ho-
minem de limo terre & inspirauit
in faciem eius spiritalium uitae. & factus
est homo in animam uiuentem.

cum esset substantia animae. & esset in qua
uiueret & creauit. Aliiter limus coenum
& fordes exprimit uitiorum in quibus polluit
homo. similiter & lucum duplicem significatio-
nem habet hoc est carnis humane & pollutio-
nem uitiorum. Unde dñi legitur in euangelio
lucum exspato fecisse & cecina oculos aperu-
isse. & exspuit enim interram & fecit de salina
lucum quia uerbum caro factum fide in carna-
tionis eius imbuit genus humanum quod ce-
cum erat a natiuitate. hoc est ab origine
primi hominis. sic ad piscinam filioe. hoc est ad
baptismi sacramentum illud misit. & contra
riouerolutum ponitur quando fordes significat
uitiorum. Unde est illud beati patris qui de pecca-
toribus ait. contigit enim eis illud uerbum uer-
biu carnis reuerfus ad suum uocatum & suscita-
tuoluta broluta. Argilla ab argis uocata
apud quos primum ex ea uasa confecti sunt.
& significat sanctam scripturam. Unde legitur
in libro regum quod omnia uasa quae fecit
hirsus ala moni in domo dñi deaurata calco-
erant in regione ror dani si fidit ea rex in
argillosa terra apte in regione ror dani si
fusa sunt uasa domus dñi in quo uidelicet
flumine dñi. nri baptizari dignatus est
eiusque tunc in sancta aqua in nobis elementum
in ablutione peccatorum conuertere. Argillosa
autem terra de qua facti sunt forme ad fun-
dendam ad dñi. quoniam eius quae scriptura

DE PULVERIBUS ET GLE-
BIS TERRAE

PULVIS DICTUS QUOD UI-
UEN-
PELLATUR. Tollitur enim eius flatu
nec resistit: nec stare nouit sic ut propheta
tamquam pulvis quēpiat uentus a facie trāe
limus uocatur quod lenissimū est uorago lu-
tis. Similiter emendatio dicitur ab eo emi sic fauilla
quod pignus effecta sit. Nil aliud significat. Gleda
quod sit globus. pulvis enim collectione
compingitur. & in uno glomere adunatur.
terra autem ligata. gleda est soluta pulvis.
lutum uocatur quia parum sibi putant quod
non sit lutum. hoc est mundū. nam omne lutū
humidū est. Nil uisibile appellatur quia dibi
poti uoluerunt. alio forder lona tāque sian
Pulvis significat corruptionē humane natura-
t leuitatem humane mentis ut est illud impel-
lit quod de peccatore scriptum est. & terra tā-
quam pulvis quēpiat uentus a facie terrae.
pulvis enim ut supra diximus est resolutio
terre. & quia homo terrae uisus quando infla-
tur seductorio uento superbie desoliditate
terre uiuentium quasi pulvis abicitur. quia
sua leuitate ad firmamentū mandatorū se te-
nere non potuit. Lunus autem terra nū-
terram humani corporis significat. ut est
illud. formauit igitur hominē de delonā
terre. & inspirauit in faciem eius spiri-
talem uitae. & factus est homo bixionā.

iuuentem. cum ei substantia un animae. uessit.
In qua uiuersū creauit. alter luma carum &
forder exprimit uitorū in quibus pollutio
homo. Similiter & lutum duplicē significat
enim habet. hoc est carnis humane & pollutio
nem uitorū. Unde dñi legitur in euange-
lio. lutū exputo fecisse. & ceci nati oculos
aperuisse. Exput enim littera & fecit
desolatio lutū. quia uerbu caro facit in fide
Ina nationis eius imbut genitū humanum
quod deū erat auituitate. hoc est ab origine
prami hominis. & sic ad pñemā filio. hoc est
ad baptisimū sacramentū illud misit. e contra
pro uero lutum pñitaj quando forder signi-
fioa uitorū. Unde est illud beati petri
apostoli de peccatoribus ait. contigit emi eis
illud uera pñitūm. carnis reuer sit ad suum
uonitūm. & sic lora in uolubro lora. Angel
la ab origi uocata apud quos primum exca uā
sa confecta sunt. & significat scām scripturā.
Vnde legitur in libro regum quod omnia uasā
quae fecit hram Alomoni in domo dñi deaurat
eo erant in regione lordanis. sicut sunt uasā
domus dñi. sicut ēā rex in argillosa terra apud
in regione lordanis. sicut sunt uasā domus dñi
In quo uidelicet flumine dñi nū baptisimū
dignatur est. cuius reuer sit uolubro nobis
demonā in uolubro peccatorū conueruit. Ar-
gillō autē terra de qua facta sunt forme ad
fundenda uasā dñi. quae uidetur quā scripturā

quia publice ridebuntur postea ad iniuriam
et mortem quam pati sunt. mundum autem
angelos et homines docet quia angelus ma-
lus dicitur deus in psalmo. hoc uis. uox
ab eis illorum per angelos malos et homines mali
atque increduli. hic apostolus in iuriis oblecta-
mentis sunt mundus autem idcirco infidelitas
dicitur quia uisibilia sequitur.

xvii. **DE LUDO GYMNICORUM**

Gymnicus ludus est uelocitatis ac uirtutis glo-
ria cuius locus gymnasium dicitur ubi exercen-
tur ante laetitia et cursum uelocitatis
conprobatur hinc accidit ut omnium prope
artium exercitia gymnasia dicantur ante
enim in ludis certantes emittuntur nuda-
rentur post relaxato emulo repente pstra-
tus et occiditur quidam cursum quare
ex consilio decreto artem pponere ut nudi
deinceps omnes exercitarentur pmissis oculis
logimnasia dictum quod iuuenes nudos exercere
in campum ubi sola tutum uerecunda operi-
untur. **DE GENERIBUS GYMNICORUM**

xviii. **G**enera gymnicorum quinque id est saltus
cursum luctum uirtutis ac luctatio unde fe-
runt quendam regem totos filios adulescentes
habentem totidem generibus de regno iussit
se contere. **DE SALTU**

xviii. **S**altus dicitur quod exilire in altum est enim
altus exilire uel longius. Saltus enim missi-
ce pfectus uirtutum significat ut et illud in eu-

angelus et claudus sicut ceruus. Saltare
totus uirtutibus in domino gaudere sicut in lib-
regum de dauid dicitur et saltauit coram ar-
cha domini totis uirtutibus et in alia partem in euangeli-
um cantabimus uobis tribus et non saltas.

xx. **C**ursus uelocitatis **DE CURSU**
cursus uocatur est enim cursum uelocitatis pedum
missis autem cursum ad uirtutis pfectum
pertinet uel certaminis agonem quomodo
christi in hoc mundo laborant. Unde dicit aposto-
lus. Nescitis quod hi qui in stadio currunt omnes
quidem currunt sed unus accipit praemium. uos
quidem sic currite ut apprehendatis hoc est ut
palmam uictoriae et plenam mercedem laboris
uirtutis accipiat. **DE LUCTU**

xxi. **L**uctus dicitur uiciendo unde et piscatorium
re et iaculum dicitur huic artium est ar-
reptor lapides procul ferre hastas pon-
dere libato iacere sagittas arcu emit-
tere. **DE UIRTUTE**

xxii. **V**irtus est immensitas uirtutis in labore et
ponderis corporis uirtutis pfecta ad exer-
citium spiritale ut uirtutibus in uirtute
superemus. **DE LUCTATIONE**

xxiii. **L**uctatio a laterum complexu uocata quibus
communis certantes in nituntur quod greci
appellatione antiphile et uocantur. Nam
et luctatio nostra spiritualis est sic carnalis
quia testes apostolo non est nobis conluctatio
aduersus carnem et sanguinem sed aduersus

quia publice volebantur positi admirari
& morte qua passi s. mundum autem ange-
los & homines dixit quia & angeli mali
sunt. dicente dauid in psalmo lxxiii.
uerbabant illos per angelos malos & homines
mali atq; in reuelu. huius apostoli loq; in uir-
tute oblectamento: mundus aut uelox in fide-
lia dicitur quia uisibilia sequitur

xviii De uelo gymnico

Gymnicus ludus est uelocitatis ac uirtutis glo-
ria cuius locus gymnasiū est. ubi exercen-
tur archilex & cursorum uelocitas
con probatur. hinc accieit ut omni munus
artium exercitia gymnasia ducunt. ante
enī in ludis certantes cuncti erant. ne nucla-
ritū post relaxato cingulo repente p̄stare
& examinatus ē quidā cursor. quare ex
consilio decreto arioni p̄promenēs ut nucla
demerit omīs exercitauerunt. p̄misit ex illo
gymnasiū dicitur qd̄ iuuenes nucla exercere in
cāpū ubi sola tantū ueretur uela oportuit.

xviii Degeneribus gymnico

Genera gymnico quinquē sūt uel salus
cursor. luctus. uirtus. atq; luctatio unde
fuit quēdā regem eorū filios adulescentes ha-
bentem totidem generibus de regno uisite
comendat. xviii De saltu.

Saltus dicitur quasi exilire in altū est enim
altius exilire uel longius. saltus enī misti-
ce p̄fectum uirtutū significat. ut est illud

in eia. tunc saliet claudus sicut ceterus. Sal-
tare totis uirib; in domino gaudere sūt in lib-
regum de dauid dicitur. & saltauit corā arthuchū
totis uirib; & in alia parte inuēiuntur ceterum
uolentibus & nō saltantibus.

xx de cur su.

Cursus uelocitate cursū uocat. ē enī cursus
celeritas pedū. misce aut cursū uelocitatis
p̄stare uirtutis p̄cineet t̄ certaminis agone quom-
latus xpi in hoc mundo laborat unde dicit ap̄l.
Nescitis quod huius qui in stallo cursū omīs qui
idem cursū secundū accipit p̄stauit. uel qui
de sic cursū. ut comprehendat hoc ē ut palam
uictoriae. & plenā mercede laboris uirtutis accipi-
mus. xxi De iactu

Iactus dicitur alacritudo unde & p̄ficatōrum
iactū uiculum dicitur. huiusmodi uirtutis artem
lapides p̄cul ferit. huiusmodi pondere blatio
uicere. & uirtutis arcu emittit.

xxii De uirtute

Virtus est immensitas uirtutis in labore &
pondere corporis. uirtus pertinet ad exer-
cium spiritale. uirtutis uirtutis uirtutis uirtutis
superem. xxiii De luctatione

Luctatio alterum complexū uocat quibus
communis certantes inuitantur qui ḡtea
appellatione archilex uocant. Nam & lucta-
tio nōa spiritalis est. non carnalis quia
teste apostolo non est nobis conluctatio ad
uersus carnem & sanguinem. sed ad uirtutis

This clearly indicates that W was at Worms by 852, but the book could have been produced several years earlier than that. Most importantly, this *berahtram*, about whom nothing further seems to be known,¹² who laments the number of errors he had to correct in this copy thereby reveals that W may have been made hastily, a suspicion confirmed by the curious mixture of hands in the book. Since the sixteenth century W has been misidentified as a fragmentary copy of Isidore's *Etymologiae*. It is marked as such both on the spine of the present binding (an early one), and on the opening folio of the text. It is listed as Isidore in the 1836 catalogue of the manuscript collection, and as recently as 1969, still signalled as such in the catalogue of dated and datable manuscripts in Austrian libraries, edited by Franz Unterkircher.¹³ The manuscript consists of 157 folios (i.e. 314 pages), in two columns of 30-33 lines per column, grouped in 19 gatherings ranging in size from 4 folios to 10. The volume contains Books 12-22 of the encyclopaedia; the absence of a list of chapter headings at the start suggests that there may have been a companion volume at one time containing Books 1-11, no longer extant.

MS A is part of a two volume set containing the full text of the encyclopaedia. Once at Reichenau, as the inscription on the opening folio shows, the set is now in the Badische Landesbibliothek in Karlsruhe where they form MSS Augiensis 96 and 68.¹⁴ Augiensis

¹² Private communication from Bernard Bischoff. Ernst Förstemann, *Alteutsches Namenbuch*, 1: *Personennamen*, 2nd ed (Bonn 1900; repr. Hildesheim 1966) 290-291, lists more than 25 variants of the name, but none of them seem to be connected with Worms, though there are some associated with Fulda. The fact that Berhtram completed his corrections in Worms would suggest that there was a second copy with which he corrected MS W. A quick glance through the manuscript suggests that most of the corrections Berhtram had to make were simple scribal errors, but not the kind he could have corrected from simple common sense.

¹³ For the nineteenth-century catalogue, see István László Endlicher (ed.), *Catalogus codicum philologicorum latinorum Bibliothecae Palatinae Vindobonensis* (Vienna 1836) 288-289; and Österreichische Nationalbibliothek, Vienna, *Tabulae codicum manu scriptorum praeter graecos et orientales in Bibliotheca palatina vindobonensi asservatorum* (Vienna 1864-99) 1.17; repeated in C.H. Beeson, *Isidor-Studien*, Quellen und Untersuchungen zur lateinischen Philologie des Mittelalters 4.2 (Munich 1913) 20; and cf. Unterkircher, *Datierten Handschriften* (as in n.11) 18.

¹⁴ Alfred Holder (ed.), *Die Reichenauer Handschriften*, 1, *Die Pergamenthandschriften*, Die Handschriften der Grossherzoglich Badischen Hof- und Landes-

96 contains the two prefaces and Books 1-11, and Augiensis 68 contains the text of Books 12-22, the same content as MS W. Augiensis 96 is in a different hand from the main hands of Augiensis 68, and the two may be numbered so oddly because Reichenau at one time possessed two full sets of *De rerum naturis*. Manuscript A (volume 2) consists of 153 folios, paginated (in the eighteenth century) from 1 to 306, in two columns of 30-33 lines per column, divided into 19 gatherings of varying sizes. These gatherings are numbered on the last folio of each gathering, by the same person who did the page numbers.¹⁵ The overall appearance of the scripts in this copy is generally very professional. Several hands have been at work, with changes noticeable between gatherings, but although there are definite differences in the appearance of these hands, most of them are clear, easy to read, and obviously well practised. The presence of a table of contents for this volume, moreover, suggests that the manuscript was produced separately from Augiensis 68. Although the content is clearly marked as being Rabanus' encyclopaedia, a fourteenth century hand has indicated on the table-of-contents page that this is not a copy of Isidore, but of Rabanus, a clear indication that this volume also suffered from the confusion that has surrounded this work.

One of the more striking features that the two copies share is their layout, and more particularly, the number of times that columns begin with the same text. In the first thirteen gatherings these are sporadic, and likely coincidental. For example, in the first gathering folios 2va, 3va, 4ra, and 4rb in MS W correspond with pages 6a, 8a, 9a, and 9b in MS A; in the second gathering, only two columns match; and there are no matches at all in gatherings 5 through 9. But gatherings 14 and 17 show a very different pattern.¹⁶

bibliothek in Karlsruhe 5 (Leipzig 1906) 254 (MS 96) and 209-210 (MS 68).

¹⁵ This was the work of Johann Baptist Enhuber, a Benedictine monk at St Emmeram in Regensburg who, in the late eighteenth century, set out to prepare a critical edition of the writings of Rabanus. In addition to numbering the pages, he added a blank leaf after p. 22 of MS A, with the notation that a leaf is missing there. Many of his collation notes are preserved in Munich, Bayerische Staatsbibliothek, CLM 15024. Cf. R. Kottje, "Raban Maur," *Dictionnaire de spiritualité* (Paris 1988) 13.2. For a brief biography see *Allgemeine Deutsche Biographie* (Leipzig 1875-1912) 6.147.

¹⁶ See Appendix A for an overview of the opening words that match.

Gathering 14 in W is a normal gathering of 16 folios (8 double sheets) spanning folios 100 through 107v. It opens with Book 19, Chapter 1 (*De culture agrorum*). The next few pages (folios 100v, 101r, and 101v, 102r, and 102v), match closely, but not exactly, with pages 198 through 202 in MS A. From that point to the end of the gathering, however, nearly every column in W is matched by every column in A. Appendix A shows this dramatically. Folio 103ra begins with the words *etiam in campi silue*, as does page 203a in A; folio 104rb begins with the word *astula*, as does page 203b in A; and so on. Moreover, in each manuscript the gathering ends with the words *quicquid est firmissimum* (W: 107vb; A: 212b).

The match is even more exact in gathering 17 (folios 124-131v). It begins in Book 20, Chapter 16 (*De spectaculis*), and ends in the middle of Book 21, chapter 11 (*De instrumentis aedificiorum*). Folio 124ra begins with the words *quia publice*, matching page 245a in MS A; folio 124rb does not quite match, but folio 125ra opens with *& iam in cordis*, as does page 247a in A; this close correspondence continues right up the end of the gathering at folio 131vb. The actual match is 31 columns out of 32, or nearly 97%. This kind of exact matching, column for column, can hardly be accidental when we consider that extant manuscripts listed in early medieval catalogues can be identified with 99% certainty given the opening words of the first page plus the *folio secundo*, or opening words of the second folio. What it means is more problematic, but at the very least we may conclude that for these two gatherings the scribe in each manuscript was copying from the same exemplar, one which was considered a master copy, and that the particular gatherings were copied separately by these scribes, since they seem to have thought it important to match them exactly. There are other indications in MS A that this was the case. Page 259, the second last page of a gathering, shows the scribe placing less and less material on each line as the column reaches the end, until by the last line he puts just three words per line. He uses the same tactic to stretch his text in other places; sometimes he will even resort to stretching the letter forms (e.g. *n* and *m*) so that they are as much as five times wider than normal, in the interest of filling the line and stretching the text to make it fit.

This is, of course, not an uncommon practice in a scriptorium where multiple copies of a particular book are being produced. Rather than having one scribe copy an entire manuscript from beginning to end, the practice would have been for the supervisor to divide the exemplar into sections according to the gatherings, and have a number of scribes make copies, speeding up production considerably. It is even possible that such new gatherings could have been stored for a while, and then assembled into a complete book as the need arose. Why just two of the gatherings in these two manuscripts should match up so closely, however, is something that prompts a lot of questions. The simplest explanation may be that when the basilica in Worms and the monastery at Reichenau requested copies of this work, they were assembled in part from existing stock, and in part produced anew. It is difficult to prove this from the small amount of evidence available here, of course, but it may explain why only two of the gatherings in the two manuscripts are so similar.

There is yet further evidence that the production of these copies was a joint effort of a number of scribes, and that this co-operation took place in a particular way. Plate 2 shows page 143 from manuscript A, with the opening of 17.1 (*De pulueribus et glebis terrae*). The first six lines of column 1 are in one hand (up to the word *Gleba*). If we compare this to the hand that copied the earlier part of the manuscript (on Plate 1) there is little doubt that this is the same scribe at work: one need only compare letters such as lower case *a*, lower case *s*, or lower case *g* to see this. This is a strong, practised, readable Carolingian hand of a type that one finds frequently in manuscripts of the period. At line 7 the hand suddenly changes to one that slopes to the right, and whose letter forms differ substantially from the first hand (see Plate 2). Among other characteristics this scribe prefers open-topped *a*'s. This second hand has also made more errors than the first one tends to make. For example, about the middle of the second column a corrector has added a missing *qd* and seven lines from the bottom of the same column the corrector has struck through the words *uasa domus dñi*. Page 143 in MS A is also the beginning of quire 10 of this manuscript, as it is in MS W. What we might term the "master hand" in MS A has copied the whole manuscript up this point, but this kind

of alteration between the first hand and a second more cursive hand occurs several times after this point in the manuscript: in each case the first, upright hand begins a quire, and the second hand continues it.

This of course represents a very common situation in which a supervising scribe will start a quire, and another one continue it until the end. There is another example, in Österreichische Nationalbibliothek, MS 652 (one of the de luxe editions of Rabanus' *De laudibus sanctae crucis* he prepared as gifts for such notables as Pope Sergius (844-847) and Louis the German, perhaps as part of the process of being appointed to the see in Mainz).¹⁷ Here one hand has begun folio 33r (also the beginning of a new gathering), and another hand has continued it. This second hand too, has made more errors than the first.¹⁸ Vienna 652 forms part of a group singled out by Jan F. Hanselmann in his 1987 study of manuscripts that shows a mixture of Mainz and Fulda hands. He assigns it to this group on the basis of the alternation and mixing of hands, rather than the presence of definitive markings indicating Mainz (or Fulda) as provenance. In his study Hanselmann suggests certain general criteria for the Mainz portion of these manuscripts that include size, proportion, and *ductus* of the script.¹⁹

It would be rash without any additional external proof to conclude definitively that either of these manuscripts was produced in Mainz; such a conclusion can only be reached after comparing the hands with a number of other manuscripts whose provenance is definitely Mainz. Nevertheless, the combination of hands points in that direction for MS A. Mainz would be a logical place for the production of copies of works by Rabanus after 847, and especially of copies some of whose scribes are from Fulda, whence he must have brought scribes with him when he moved to Mainz from the Petersberg. The close correspondences between some of the gatherings suggests that portions of MS A, if not the entire volume, were produced in the same centre as MS W. If on the strength of its

¹⁷ Holter (ed.) *Liber de laudibus sanctae crucis*, fol. 33r.

¹⁸ For example at line 11, where *claudus* occurs in the wrong location; or line 12, writing *in dam* instead of *in deam*. Other examples occur at lines 14 and 23.

¹⁹ Jan Hanselmann, "Der Codex Vat. Pal. Lat. 289: Ein Beitrag zum Mainzer Skriptorium im 9. Jahrhundert," *Scriptorium* 41 (1987) 78-87, at 85.

scripts MS A is a product of the Mainz scriptorium, then MS W is likely a product of the same scriptorium.

These three are not the only early copies of the text of *De rerum naturis*. In 1987, for example, some fragments of another ninth-century copy were recovered from the binding of a sixteenth-century printed copy of Thucydides in the Oettingen-Wallersteinische Bibliothek in Augsburg, printed in Cologne.²⁰ Although only two folios survive, a collation with MSS A and W indicates that these fragments differ textually from them, whereas a collation of A and W makes clear that they are closely related to each other. MSS A and W and the Augsburg fragment are the only copies known to me dated (on the basis of script or inscription) to the ninth century. The Harley copy mentioned earlier has been dated to the tenth century, but it is only a fragment, albeit a substantial one. The other copy that is likely to be significant for establishing the text is the deluxe single volume copy in the abbey of Montecassino mentioned earlier. It was copied from a south German exemplar that must have been carried to the abbey, since the script throughout is typical of the Beneventan script in use there during the early eleventh century. It was illustrated there, and completed in the year 1026, since when it has been one of the treasures of the abbey's library.²¹ Textually the copy agrees closely with MSS A and W, and can therefore act as a useful check on the textual accuracy of those copies. All other copies of the encyclopaedia date from the eleventh century or later, and while they have an intrinsic interest of their own, and can tell us a great deal about the reception of Rabanus' encyclopaedia during the Middle Ages, they are not likely to be of much value textually.

Although the encyclopaedia continued to be copied throughout the Middle Ages, and was one of the earliest books to be printed (there is an edition by the Strasbourg printer Adolf Rusch that can be

²⁰ The fragment formed part of the binding of *Thucydidis ... de bello Peloponnesium Atheniensiumque libri octo Laurentio Valla interprete* (Coloniae: Iaspar Gennepaeus, 1550).

²¹ For an overview of the bibliography see Véronique Frandon, "Les saisons et leurs représentations dans les encyclopédies du moyen âge," in: M. Picone (ed.), *L'enciclopedia medievale* (Ravenna 1995) 55-78, at 58 n.9. The manuscript has recently been reproduced in a lavish facsimile edition: *De universo / De rerum naturis: Cod. Casin. 132, Archivio dell'Abbazia di Montecassino* (Turino 1994).

dated to before June 1466), it never achieved the popularity that Isidore's book did. Approximately 40 copies have survived, in addition to a number of fragments, as well as the Rusch edition (reprinted in Cologne in 1626 and again by Migne in 1851), but that number pales in comparison to the hundreds that are still extant of Isidore.²² However, Rabanus' encyclopaedia played a significant and innovative role in the transmission of earlier ideas. It is, moreover, thanks to what was clearly an active dissemination program of copies of Rabanus' writings in Mainz during his tenure as archbishop that we can recover the text using copies that he himself probably authorised for publication.²³

²² See W. Schipper, "Rabanus Maurus, *De rerum naturis*: a Provisional Check List of Manuscripts," *Manuscripta* 33 (1989) 109-118.

²³ I am grateful to the Social Sciences and Humanities Research Council of Canada for a travel grant to present my paper to the conference in Groningen. I would also like to thank Michael Twomey, Peter Binkley, Jos Hermans, David Bell and Jim Butrica for their observations and questions; and Karen Grove and Mary Garrison for faxing last minute references.

APPENDIX A: COLLATION AND MATCHING OPENING WORDS

Vienna, ÖNB, 121 (W)			Karlsruhe, BLB, Aug 68 (A)		
Quire	Folio	Opening text	Quire	Page	Opening text
I (1-8v)	2va		1 (1-18)	6a	Saluatoris
	3va	uel potestas		8a	uel potestas
	4ra	nebrot		9a	nebrot
	4rb	nebrot gigans		9b	enbrod giga[n]s
II (9-14v)	9ra	Interpretatur	2 (19-28)	19c	Interpretatur
	13va	Tertorum		28a	Territorium
III (15-22v)	20va	in asaroht	3 (29-46)	42a	in aseroht
IV (23-30v)	23ra	& umbrosi	4 (47-78)	47a	& umbrosi
V (31-38v)			5 (79-94)		
VI (39-45v)			6 (95-)		
VII (46-53v)			7 (-106)		
VIII (54-61v)			8 (107-22)		
VIII (62-72v)			9 (123-42)		
X (73-80v)	73	De pulueribus	10 (143-58)	143	De pulueribus
	73va	sacra de qua		144	sacra de qua
XI (81-88v)	82vb	(subdi)derunt	11 (159-173)	162b	(subdi)derunt
	86va	culpas nostras		170	culpas nostras
	87va	in corbanan		172	in chorbanan
XII (89-96v)	89ra	mon&ta appellata est	12 (174-90)	175	moneta appellata est
XIII (97-99v)	97ra	& cythera	13 (191-96)	191A	& cithara
XIV (100-107v)	100ra	Incipit liber XVIII De cultura agrorum	14 (197-212)	197a	Incipit liber XVIII De cultura agrorum
	102ra	de utero nomii		201a	
	103ra	etiam in campi silue		203a	et in campis silua
	103rv	astula		203b	Astula
	104ra	& uictoriam		205a	&uictoriam
	104rv	uergilius		205b	Virgilius

Vienna, ÖNB, 121 (W)			Karlsruhe, BLB, Aug 68 (A)		
Quire	Folio	Opening text	Quire	Page	Opening text
XIV (100-107v) (cont'd)	104va	de terra	14 (197-212) (cont'd)	206a	de terra
	105ra	florebit		208a	florebit
	105vb	In ueritate		208b	In ueritate
	106rb	ebrietas		209b	ebrietas
	106vb	pitin aliam greci		210a	pitin aliam greci
	107ra	resina		211a	resina
	107rb	a rocunditate		211b	a rotunditate
	107va	Iuniperus		212a	Iuniperus
	107vb	uel quod ipsa		212b	uel quod ipsa
XV (108-15v)	108ra	potest	15 (213-28)	213	potest
XVI (116-123v)	116ra	Ruta dicta	16 (229-44)	229	Ruta dicta
	116rb	gente		229b	
	123rb	& in morte		243b	& in morte
	123va	nolite iudicare		244a	Nolite iudicare
XVII (124-131v)	124ra	quia publice	17 (245-60)	245a	quia publice
	124va	principes		246a	principes
	124vb	ut possit		246b	ut possit
	125ra	& iam in cordis		247a	& iam in cordis
	125rb	animam		247b	animam
	125va	societas		248a	soci&tas
	125vb	etates		248b	etates
	126ra	quia pedibus		249a	quia pedibus
	126rb	idem gentibus		249b	idem gentibus
	126va	& quem infernus		250a	& quem infernus
	126vb	XXXVIII De horum execratione		250b	XXXVIII De horum execratione
	127ra			251a	
	127rb	Rostrate		251b	Rostrate
	127va	similiter		252a	similiter
	127vb	confugunt		252b	confugunt
	128ra	Funis		253a	Funis
	128rb	(no match)		253b	(no match)

Vienna, ÖNB, 121 (W)			Karlsruhe, BLB, Aug 68 (A)		
Quire	Folio	Opening text	Quire	Page	Opening text
XVII (124-131v) (cont'd)	128va	se uincere	17 (245-60) (cont'd)	254a	se uincere
	128vb	elementis		254b	elementis
	129ra	ut aeterni		255a	ut eterni
	129rb	comminationes		255b	comminationes
	129va	Aedificiorum		256a	Aedificiorum
	129vb	stabilitatem		256b	stabilitatem
	130ra	alter ad proximum suum		257a	alter ad proximum suum
	130rb	ex parte corticem		257b	& ex parte corti-fem
	130va	V De laqueariis		258a	V De laqueariis
	130vb	sinopsis rubrica		258b	sinopsis rubri ca
	131ra	in norma		259a	In norma
	131rb	ita dicam		259b	ita dicam
	131va	caput enim		260a	caput enim
	131vb	& in regum		260b	& in regum
XVIII (132-42v)	132ra	non consideras	18 (261-70)	261a	non consideras
	132rb	ligne		261b	scriptura narrat
	133va	ex una enim parte		262a	ex una enim parte
	133vb	De secure autem		262b	De secure autem
	133ra	Mineruam		263a	Mineruam
	135ra	uel quod lumbis hereat		267a	uel quod lumbis hereat
	135rb	tamen pristinam		267b	tamen pristinam
XVIII (143-50v)	135vb	palmas ipsa uocabatur	19 (271-302)	268b	palmas. Ipsa uocabatur

ALBERT THE GREAT'S TOPOI OF DIRECT OBSERVATION AND HIS DEBT TO THOMAS OF CANTIMPRÉ¹

JOHN B. FRIEDMAN

As early as 1852 scholars had become aware that Albert the Great's expansion of Aristotle's nineteen books on animals, *De animalibus*, made between 1258 and 1262, relied heavily on Thomas of Cantimpré's *De naturis rerum*, completed by 1240. The arguments for this indebtedness were well summarised by the late Pauline Aiken, who in 1947 showed through a set of convincing parallels that Albert had not only made very considerable use of Thomas, but had also incorporated many extremely idiosyncratic errors in his source, errors which had come about through Thomas' misreadings of Pliny and other earlier writers on natural history.²

In spite of these clear demonstrations of indebtedness, historians of science have praised Albert as the first medieval writer on natural history to supplement received information with material derived from systematic personal observation. For example, George Sarton noted that Albert's last two books "contained the results of

¹ I am very grateful to Keith Busby, Kristen Figg, Juris Lidaka, Mardell O'Brien, Vicki Szabo, Michael Twomey, Baudouin Van Den Abeele, and my colleague Charles Wright for help and suggestions in the course of preparing this paper for publication.

² The scholarly controversy at issue here is well summarised in Aiken's article "The Animal History of Albertus Magnus and Thomas of Cantimpré," *Speculum* 22 (1947) 205-225. Not mentioned by Aiken is Heinrich Balss, *Albertus Magnus als Biologe* (Stuttgart 1947), where Albert's debt to Thomas is discussed generally on p.5, and a specific example of Albert's "nationalisation" of the otter appears on pp.226-228. Useful general studies of Thomas are G.J.J. Walstra, "Thomas de Cantimpré, *De naturis rerum*—État de la question," *Vivarium* 5 (1967) 146-71, 6 (1968) 46-61; and more recently Christian Hünemörder, "Antike und mittelalterliche Enzyklopädien und die Popularisierung naturkundlichen Wissens," *Sudhoffs Archiv* 65 (1981) 339-367. A bibliographical work of sorts is Anne Debroux, *Thomas de Cantimpré (vers 1200-1270). L'homme et son œuvre écrite. Essai de bibliographie* (Louvain 1979), though it is very difficult of access. Helmut Boese's promised second volume of his edition *Thomas Cantimpratensis Liber de natura rerum* (Berlin/New York 1973) has unfortunately never appeared. For Thomas' biography and possible connections with Albert, the study of A. Deboutte, "Thomas van Cantimpré als auditor van Albertus Magnus," *Ons geestelijk erf* 58 (1984) 192-209 is helpful.

observations made by himself or communicated to him by the observers. Many animals were here described for the first time."³ More recently, in his very useful translation and study of the *De animalibus*, James Scanlan has stressed as well the experiential side of Albert's writings, especially in regard to horses, dogs, falcons, and whaling, saying, for example that "Albert's description of the whaling industry, obtained at first hand, was the first expansive treatment of the subject in Western literature. Most important, he relied on his own observations and the reports of knowledgeable whalers."⁴

The purpose of the present article is two fold. I should like first to present some general information about two now-lost encyclopaedic writers used extensively as sources by Thomas of Cantimpré. These still unidentified authors, Experimentator and the author of *Liber rerum*, must have been of considerable repute up to Thomas' own day. Their works, however, are at present known only by the extracts in Thomas' book.⁵ I shall then try to show how Albert develops the *topoi* of direct experience in his adaptations of these two writers from Thomas' encyclopaedia. What the result of my study suggests is that Albert very skilfully recycled material from both of these sources through a variety of rhetorical stratagems to make it his own, sometimes merely suppressing the names of the sources, and sometimes more elaborately augmenting, as we shall

³ George Sarton, *Introduction to the History of Science* (Baltimore 1931) 2.2.778.

⁴ James J. Scanlan (tr.), *Albert the Great, Man and the Beasts*. Medieval and Renaissance Texts and Studies (Binghamton 1987) 341 n.19.3. Scanlan does not seem aware of Aiken's study. See also Sarton, *Introduction to the History of Science* (as in n.3) 2.2.936, and Lynn Thorndike, *History of Magic and Experimental Science* (New York 1923) 2.521.

⁵ Though Christian Hünemörder devoted some attention to these authors in his study "Die Bedeutung und Arbeitsweise des Thomas von Cantimpré und sein Beitrag zur Naturkunde des Mittelalters," *Medizinhistorisches Journal* 3 (1968) 345-357, he was unable to identify them. He did connect citations from Experimentator textually with Arab sources such as Rhazis, and found some examples of the word "experimentatores," though these are rather far from its appearance as a noun in Thomas. Baudouin Van Den Abeele, "Bestiaires encyclopédiques moralisés. Quelques succédanés de Thomas de Cantimpré et de Bartholémy l'Anglais," *Reinardus* 7 (1994) 213 surveys the issue and does not note any recent progress. I am grateful to Dr. Van Den Abeele for suggestions concerning this matter.

see, with comments of an evaluative and experiential nature, some of the more fantastic discussions of the two earlier authors, especially on whaling. Thus, Albert's reputation as the first important medieval direct observer of nature can be seen to be based as much on his rhetorical skills as on the breadth and acuity of his actual experience of the animal world.

Thomas, in the Prologue to his encyclopaedia, meticulously acknowledging his major sources and ranking them in order of importance, shows that naming them forms part of his plan for the work as a whole. Aristotle, Pliny, Solinus, Ambrose and Basil in their *Hexamera*, and Isidore, of course, would be commonly consulted by most encyclopaedists before Thomas. But the Dominican is unusual in citing—with equal reverence—some *moderni*, such as Jacques de Vitry, who died in 1240, and is said to be “now” cardinal of Tusculanum. This reference is especially helpful in allowing us to date at least the Prologue of the *De naturis rerum*.

After him, in seventh and eighth position, are more *moderni* but considerably obscurer ones than Jacques. Thomas has examined “the Book of Things, a small book, but including much on the natures of things,” as well as “a certain book, the author's name now suppressed, which I understand was compiled in modern times. Whenever you find his sayings under the name ‘Experimentator’ in my pages, you will know they are his.”⁶ Since the pair are apparently Thomas' near contemporaries, it is puzzling how their writings and identities could have vanished so completely that they were unknown to other late thirteenth- and early fourteenth-century

⁶ All quotations from Thomas of Cantimpré's *De naturis rerum* used here are drawn from the twenty-book version, presumably representing the author's final treatment of his material, found in Valenciennes, Bibliothèque Municipale, MS 320. I am indebted to the Conservateurs of this collection, MM Pierre Campagne and Paul Lefrancq, Conservateur honoraire, for allowing me to photograph the manuscript. See, for the Latin text of the Prologue, John B. Friedman, “Thomas of Cantimpré, *De Naturis Rerum*. (Prologue, Book III, Book XIX),” *Cahiers d'Études médiévales II. La science de la nature: théories et pratiques* (Paris/Montreal 1974), where the passages translated here appear on p.119. On revision history and the various adaptations of the *De naturis rerum*, see Boese (ed.), *Thomas* (as in n.2) viii, and Christian Hünemörder, “Probleme der Intention und Quellenerschliessung der sogenannten 3. Fassung des *Liber de natura rerum* des Thomas von Cantimpré,” in: Ewald Könsgen (ed.), *Arbor amoena comis: 25 Jahre Mittellateinisches Seminar in Bonn 1965-1990* (Stuttgart 1970) 241-249.

authors.

Experimentator is cited in eight of Thomas' twenty books, a total of ninety-six times, beginning in the fourth book, on animals, and continuing with about equal frequency through the next book on birds. Those on large water creatures, fish, reptiles, and insects each contain a number of citations, while in the book treating the four elements he is only quoted twice. His discussion of water there, however, is quite lengthy. It appears then, that the lost original works of Experimentator dealt only with natural history and some of the four elements, or that Thomas chose to use only those portions that did so.

Of equal utility to Thomas was the *Liber rerum*, which he quotes, usually in conjunction with the work of Experimentator, seventy-seven times. This author is typically cited in the same books as Experimentator, but he is used in Book Thirteen on Springs, in Book Fourteen on Stones, and in Book Fifteen on Metals where Experimentator is not. This said, it is evident from the type and extent of the citations in Thomas, that these two were authors whose works must have rivalled the *De naturis rerum* in scale, and anything we can learn about them will add much to our knowledge of the great Dominican encyclopaedists and their methods of compilation from earlier sources.

Let us defer the question of Albert's rhetorical stratagems in adapting these two writers for a moment and consider the available evidence about them. Each of Thomas' chapters has a characteristic structure. First, general information is presented, some from direct reading of earlier sources and some at second hand. Thomas characteristically ends most entries with medical consilia indicating the pharmaceutical value for human medicine of the plant or creature in question. Often, he will append a moralisation of the animal in question, finding passages in scripture and among patristic writers where its symbolism is expressed. As he notes in his Prologue, "hence I have briefly distinguished the moral meanings and significances of things in certain places from time to time, but not continuously because I would shun prolixity."⁷ In short, we typically find in Thomas a tripartite structure: a naturalist's information on the subject is followed by its role in medicine for the physician and

⁷ Friedman (ed.), "Thomas" (as in n.6) 120.

then by its utility for a preacher composing a sermon.⁸ Experimentator is never a source for such *moralitates* and seems to have been considered a purely secular and scientific writer, but the *Liber rerum* author occasionally supplies moral emphases as well as scientific information.

Thomas seems to have known the work of Experimentator more intimately—or perhaps simply had a manuscript of it to hand—than he did that of the *Liber rerum* author. For example, in entries on more common animals, birds and fish, citations from Experimentator may be mixed in with those from Basil, Pliny and Solinus, and his authority may be invoked at several different points in an entry. With entries containing information from *Liber rerum*, however, usually this author is cited only once, at the beginning, as if Thomas relied on him because he lacked other sources of information. And he is not easily interlaced with ancient sources like Pliny and Solinus.

Though neither of these encyclopaedists has been identified, there is nonetheless much to say about them. Perhaps easiest of access for us because of his unusual name is Experimentator. Thorndike suggested that he might be the person of that name mentioned as an authority 256 times by the physician, Peter of Spain, 1225-1277, later Pope John XXI.⁹ Peter, who was one of Albert's students, compiled a collection of medical recipes called the *Thesaurus pauperum*, and he is to my knowledge the only medieval writer other than Thomas consistently to use the name or epithet Experimentator to describe a scientific writer.

Only twenty animals out of the four hundred specific creatures

⁸ See on Thomas' preoccupation with exempla and the utility of his work for preachers, Robert Sweetman, "Dominican preaching in the southern Low Countries, 1240-1260: *materiae praedicabiles* in the *Liber de natura rerum* and *Bonum universale de apibus* of Thomas of Cantimpré," Ph.D. diss. (Toronto 1988), and Antonie van der Wouter, *Het Bienboec van Thomas van Cantimpré en zijn exemplen* ('s-Gravenhage 1982).

⁹ Thorndike, *A History* (as in n.4) 2.767. On Peter, see Peter of Spain, *Thesaurus pauperum*, ed. Luis de Pina and Maria de Rocha Pereira, *Studium generale* 1 (1954-1955) 161-299; 2 (1955) 182-247; 3 (1956) 68-173, 310-349; 4 (1957) 54-139; and 5 (1958) 255-283. On the relation of Thomas, Albert and Peter, see Miguel J.C. de Asua, "The association of discourse on animals in the thirteenth century: Peter of Spain, Albert the Great, and the commentaries on *De animalibus*," Ph.D. diss. (Notre Dame 1991).

described by Thomas, however, are also mentioned by Peter's source. And a comparison of parallel passages from each man reveals no verbal and only the most general substantive similarities. Thomas' Experimentator, for example, in an article on the wolf, offers a folkloric account of this animal with only the briefest comment on its medical value:

The wolf collects the leaves of the willow in its mouth and hides itself under them, and when goats come to these willow leaves, he quickly captures them. And he conceals even the sound of his feet as he goes among the leaves by moistening his paws with his tongue and thus moving smoothly and silently, he ensures that he is not heard by dogs. The wolf sees poorly by day but by night he sees more clearly. ... Wolf heart if dried is good to eat as an aromatic.¹⁰

Peter, by contrast, is interested only in the wolf's medical properties, observing that "Experimentator says, and I have heard the same from other experts, that wolf heart if eaten or drunk is healthful."¹¹ Here the similarities indicate that if the two Experimentators are the same, Peter may merely have summarised only the pharmaceutical portions of the text known to Thomas. Moreover, that Peter quotes from Experimentator often in conjunction with Dioscorides and Avicenna also suggests that he regarded him both as a medical writer and as a "foreigner."

Indeed, that Experimentator may have been Jewish or Moorish is suggested by a curious aside in his comments on the tail of the young beaver as edible, where he says *Unde ieiunio comeditur a Christianis*,¹² as if remarking on a cultural oddity. Surely a Christian writer would not have identified the tastes of his fellow Christians in this way, but an outsider would have.

The noun Experimentator is uncommon, denoting a practitioner of a science from an experimental or experiential rather than an abstract deductive or mental point of view. More usually the term *experimenta* in manuscripts refers to processes of a medical, alchemical or magical kind. Never do such texts merely retail natural history; rather the writer tries to harness the thing discussed to a

¹⁰ Book IV, c.60 (fol. 68r); Boese (ed.), *Thomas* (as in n.2) 4.60 ll.14-18, 93-94.

¹¹ See Peter of Spain, *Thesaurus pauperum* (as in n.9) 1.3, item 24.

¹² Book IV, c.14 (fol. 54v); Boese (ed.), *Thomas* (as in n.2) 4.14 l.13.

particular end. As there is nothing practical or "experimental" in the alchemical sense about the Experimentator quoted by Thomas, he seems ill named for the role he plays in the *De naturis rerum*.

If Experimentator may have been an eastern and even a non-Christian writer, the author of *Liber rerum* seems to have been closer to Thomas' geographical and ideological range. For example in Book Thirteen on Springs, though Thomas promises that he will rely there only on Solinus, Augustine, Isidore and Jacques de Vitry,¹³ he cites *Liber rerum* as an authority on the famous spring, the Fontaine de Barenton in the Forêt de Brocéliande in Brittany, perhaps best known through its appearance in Chrétien de Troyes' *Yvain* but mentioned by a number of mid-twelfth-century writers. *Ut dicit Liber rerum [fons] in minori Britannia esse refertur cuius aque super propinquum lapidem proiecte pluvias et tonitrum provocare discuntur.*¹⁴ Such information would suggest perhaps an early twelfth-century English or French provenance for the author. Since Wace, in the *Roman de Rou* written about 1160, seems to be the earliest author to refer to the spring and specifically connect it with Brittany,¹⁵ the *Liber rerum* author may only have been a generation or so earlier than Thomas himself. This idea is further sup-

¹³ See Jacques de Vitry, *Jacobi de Vitriaco Libri duo quorum prior Orientalis sive Hiersolymitane* (Douai 1597), Book I, c. 92. Jacques uses the phrase *Britannia minor* which is similar enough to that used by the *Liber rerum* author to allow for the possibility that Thomas by mistake assigned a comment actually made by Jacques to *Liber rerum*. But so many other features of the *Liber rerum* author seem to have a Celtic cast as to suggest that though both writers mention the fountain in similar ways, Thomas used the *Liber rerum* here rather than Jacques for his information.

¹⁴ Book XIII, c.21 (fol. 167r); Boese (ed.), *Thomas* (as in n.2) 13.21.

¹⁵ See generally Felix Bellamy, *La forêt de Bréchéliant, la fontaine de Bérenton, quelques lieux d'alentour, les principaux personnages qui s'y rapportent* (Rennes 1896). Though Chantal Connochie-Bourgne, "La fontaine de Barenton dans l'*Image du Monde* de Gossuin de Metz: Réflexion sur le statut encyclopédique du merveilleux," in: *Mélanges Charles Foulon* (Rennes 1980) 37-48 is concerned with the appearance of the spring among thirteenth-century writers who may have used encyclopaediae, she does not mention Thomas or *Liber rerum*. Charles Foulon, "Brocéliande et sa Fontaine dans la littérature latine médiévale," in: *Au Miroir de la culture antique: Mélanges offerts au président René Marache* (Rennes 1992) 231-36 also gathers passages on the fountain among early writers. I am grateful to Keith Busby for drawing my attention to the Connochie-Bourgne and Foulon articles.

ported by the fact that *Liber rerum* when quoted in Thomas' book on fish notes the Britishness of the pilchard, though Albert extends this range to the shores of France, Germany and Denmark; and that in his discussion of the ass, the *Liber rerum* author seems to have been indebted to the English *Distinctiones monasticae* of about 1220.¹⁶ That he may have had some first-hand knowledge of court culture as well is suggested not only by his knowledge of a magic spring soon to be popular in Arthurian romance, but also by his fondness for and praise of the greyhound in his discussion of hunting dogs, and his frequent and detailed comment on different sorts of falcons in the book on birds. He also, as we shall see, exhibits considerable knowledge of the whaling industry.

So too, citations from this author's work often lead Thomas into Christian moralisations and imply that he felt comfortable with the work's Christian character. For example in Book IV, chapter 2: *Asinus, ut dicit Liber rerum, animale deforme est, vile et despectum ... In humeris stigmata Christi portat crucis, et hoc merito, eo quod Christus ad passionem properans, mundum morte redempturus.*¹⁷ In the next chapter, the wild boar *ut dicit Liber rerum, bestis fortis est, qui nullam doctrinam bonorum morum recipit unquam, sed semper seua et ferox est.*¹⁸ Perhaps the most striking use of this author for didactic purposes appears in Book Fourteen on Stones, where after a lengthy discussion of the magical and apotropaic powers of images engraved on gems, Thomas has two chapters on how such stones came to lose these powers and how they can be regained.

Just as *Liber rerum* says, which has incorporated many stories of the ancients, all the creation was corrupted by the sin of the first man, and precious stones were greatly corrupted, which like herbs and many similar things, were made for the healing of mankind. But through the touch and sight of men soiled by sin, often the virtues

¹⁶ See on this point Hünemörder, "Die Bedeutung und Arbeitsweise" (as in n.5) 350.

¹⁷ Book IV, c.2 (fol. 50r); Boese (ed.), *Thomas* (as in n.2) 4.2 ll.1-5. The *Distinctiones Monasticae*, an early thirteenth-century English work, is discussed with bibliographical treatment by Richard Hunt, "Notes on the *Distinctiones monasticae et morales*," in: Bernhard Bischoff and Suso Brechter (eds.), *Liber Floridus: Mitteleinische Studien Paul Lehmann* (St. Ottilien 1950) 357-362.

¹⁸ Book IV, c.3 (fol. 50v); Boese (ed.), *Thomas* (as in n.2) 4.3 ll.1-3.

which remained in the stones after the first man's fall are corrupted. However, just as man is redeemed through baptism and penitence in order that he can be as he was when first created, just so precious stones can through consecration and sanctification have their powers restored.¹⁹

Thomas then follows this information with a religious formula in the next chapter for returning these powers to the gems, though this is not ascribed to *Liber rerum*. That Thomas recognises that the author retells "stories of the ancients" would again suggest his being the Dominican's near contemporary.

Let us now examine the rhetorical stratagems which Albert employed in adapting material from these two authors to make it seem the result of his own direct experience. Albert does this in three ways. Sometimes he simply eliminates the name of the source for the statement, which he then makes in his own voice. Sometimes, he amplifies the statement with concrete details and suppresses fantastic or improbable ones, relocating the creature into his own geographical sphere, as for example Germany. And sometimes he takes a narrative framework over from Thomas and adds a considerable amount of personal observation, putting new wine into an old bottle.

Typically where Thomas revels in the citation of authorities to support his points, Albert suppresses their names. He never mentions Thomas by name (nor does Thomas mention him) and whenever Albert uses Thomas' citations of passages from *Experimentator* and *Liber rerum*, he takes over the citation's content—though not its exact words—without ever mentioning the names of the two authors. Indeed, the word *experimentator* appears only once in Albert and then not as an epithet.

Nor does he suppress only the names of these two authors. For example, a characteristic instance of suppression and adaptation on Albert's part involving a source peculiar to Thomas and not one which Albert would have easily had access to independently is the case of "Adelinus." Among Thomas' list of authorities is one "Adelinus philosophus," of whom Thomas says that "though he

¹⁹ Book XIV, c.71 (fol. 175v); Boese (ed.), *Thomas* (as in n.2) 14.71 ll.1-9. Boese's text omits "rerum" in l.1 and reads "usum" for "visum" in l.5.

wrote little, it was exceedingly valuable."²⁰

In the book on serpents, Thomas says: "Adelinus in his riddles speaks metaphorically in the person of the salamander in verse," and goes on to quote the Englishman Aldhelm of Malmesbury's seventeenth riddle.²¹ Fourteen similar citations in Thomas are drawn directly from Aldhelm's Latin riddles.²² Thus, Thomas believed Adelinus to be Aldhelm—a common enough Latinisation of his name—and mentions Adelinus thirty-four times in the *De naturis rerum*, chiefly with regard to monstrosities. Whoever he believed Adelinus to be, he knew his work well and moved about easily in the text before him.²³

These citations actually come from the *Liber monstrorum*, a collection of monster lore of apparently Insular origin compiled between 650 and 750. From it Thomas derived fifteen different sections of the animal portions of his encyclopaedia, where certain mythological creatures such as the manticore, Pegasus, the pilosus, Cacus, the chimera, the onocentaur and the salamander in its fire resistant aspect are categorised as animals, as well as nine consecutive entries in his book on monstrous men, which has no parallel in Albert's *De animalibus*.²⁴ It seems very unlikely then, that Albert—who otherwise exhibits no knowledge of or interest in Adelinus—in his own treatment of the same fabulous beings cited by Thomas, would have used the *Liber monstrorum* on his own. Thus, just as Aiken showed in her comparisons of their natural history that Albert must have borrowed from Thomas rather than from Thomas' sources, so comparisons of the two writers on mythological or teratological subject will show the same thing.

Among Albert's devices for creating his work's experiential tone

²⁰ Friedman (ed.), "Thomas" (as in n.6) 119.

²¹ Book VIII, c.28 (fol. 137v); Boese (ed.), *Thomas* (as in n.2) 8.30 ll.62 ff.

²² Michael Lapidge and Michael Herren (trs.), *Aldhelm: The poetic works* (Cambridge 1985). Andy Orchard, *Pride and Prodigies. Studies in the Monsters of the Beowulf-Manuscript* (Cambridge 1995) 94-104 offers an excellent brief stylistic discussion of Aldhelm's riddles.

²³ See Friedman (ed.) "Thomas of Cantimpré" (as in n.6) 114-115 for a discussion of this issue.

²⁴ The best treatment in English of the *Liber monstrorum*, to my knowledge, is that of Andy Orchard in *Pride and Prodigies* (as in n.22) 85-115; he offers a translation of the entire work at 254-320.

is that of placing an animal in a specific European or even exotic location in such a way as to make the reader feel that by travelling there he could observe the same thing. We might call this device the technique of "nationalisation," where it often involves shifting the creature from the unspecified or vaguely named location in Thomas to a concrete place which Albert could conceivably have visited and there observed the creature at first hand.

This can be seen in one of Albert's most curious borrowings from Thomas, which derives from a discussion of the animal Thomas calls *Hempra* or the alpine marmot. Thomas' chapter is introduced as follows.

Hempra, as *Liber rerum* says, is a very small animal found in Germany. Both male and female marmots gather their food together in the summer so that they might live through the winter. They hide this food in the earth, making heaps. By nature, the female marmot is always hungry and eats prodigiously. In contrast, the male is frugal as he goes about collecting with difficulty the food of life. The male, however, knowing the female's greed, hides the tunnel to the food hoard. The female marmot is also canny by nature. In her greediness, therefore, she makes a hidden tunnel to the food on the opposite side, through which she can creep and steal, without her mate's knowledge, enough to satisfy her greed. Thus it happens that during hibernation, the male pines away, in summer emerging emaciated; by contrast, the well fed female is glossy and fat.²⁵

Here Thomas ends his quotation from the *Liber rerum*, but Albert, who takes over the whole passage, adds an experiential and nationalising note: "this animal, which they also call the mountain mouse, is found only in mountainous regions and is the largest member of the rodent family in our country."²⁶

Albert's Latin is less direct than Thomas', for he says *Emptra ut quidam dicunt animal est parvulum in Germania*.²⁷ He offers no specific attribution, pluralising, and suppressing the name of *Liber rerum*: "certain people say," while Thomas specifies *ut dicit Liber rerum*. After this introductory sentence, with slight differences in syntax, Albert uses Thomas verbatim, though he becomes more

²⁵ Book IV, c.38 (fol. 63r); Boese (ed.), *Thomas* (as in n.2) 4.38.

²⁶ Scanlan (tr.), *Man and the Beasts* (as in n.4) 141.

²⁷ Albertus Magnus, *De animalibus*, ed. Hermann Stadler (Münster 1920) 1401.

concrete than his source in the sentence on the blocking up the access tunnel, adding words, while in the next sentence on the female's canniness Thomas' account is fuller and more detailed. Finally, Thomas by his use of the phrase *rutilesca pinguedine* gives us a picture of the fat and glossy female marmot not equalled in Albert. In his last sentence, Albert, of course, "nationalises" the marmot: *terra nostra*, and seems in his comments on name, size and species, to give a personal stamp to the passage.²⁸

I should like to conclude our study of Albert's adaptive techniques with a final example involving the very area in which Albert has received the most laurels for direct observation: whaling. There is, of course, much in Albert's account of North Sea whaling which is certainly based on his own observation of that medieval industry. Nonetheless, it is instructive to compare Thomas and Albert on the matter. Thomas gives a good deal of information obtained from Pliny, Solinus, Ambrose, Isidore, and Jacques de Vitry on whales, their size, the size of their mouths which enabled one to swallow the prophet Jonah, their teeth, and their mating habits (much of this from Experimentator). The chapter ends in a single detailed paragraph: *Captura cetorum talias esse dicitur*. In its early years the whale stays at such a depth that *nulla hominum arte capi possit*. After three years, Thomas says, *capi potest, et hoc, ut dicit Liber rerum, tali modo*:

The fishermen, noting the place where the whale is found, gather there with many boats, and they make a concert of pipes and flutes around it, to attract it to follow (for it delights in this sound). And when the fishermen see it swimming about near the ships, by the modulations of their sound they stupefy the beast. And with an instrument in form or appearance of an iron harpoon with barbs or pointed teeth stealthily they approach and stab it in the back and then they flee in different directions. And after a certain time the whale feels the wound of the harpoon and it makes for the floor of the sea and rubbing its back on the bottom forces the iron violently into the wound, thus the iron point paring through the blubber, penetrates into the inner flesh, and the salty water enters and circulates in the wound.

²⁸ For a similar illustration of Albert's technique in making *Liber rerum* or Experimentator his own, see his treatment of the badger: cf. Scanlan (tr.), *Man and the Beasts* (as in n.4) 99-100 with Thomas, book IV, c.32 (fol. 54r); Boese (ed.), *Thomas* (as in n.2) 4.32.

The dead whale therefore floats upon the sea and is sighted by the fishermen, who with ropes and lines draw it to the shore with much dancing or stamping in order to celebrate such copious bounty.²⁹

Liber rerum is the only author quoted by Thomas in this section of the chapter and the whole narrative proceeds as if from a single source, so it is safe to conclude that the account of whaling there, which also has the ring of direct observation, derives from this work. Indeed, the author's account of the whalers' musical entrapment of their prey bears some relation to descriptions by the tenth-century Jewish traveller Ibrahim ibn Yaqub and the eleventh-century Moorish geographer Udhri of Irish whaling, where the fishermen clap their hands and even sing to attract and frenzy the whales (or dolphins) and then leap upon their backs to drive in the hook or harpoon.³⁰

A comparison of Thomas' chapter on whales with Albert's is instructive. Albert is much more detailed and concludes: "these facts about the nature of whales have been gleaned from our own experience. We have omitted what the ancients wrote, because they do not accord with the practical knowledge of experienced fishermen."³¹ Nowhere in his chapter does Albert cite an ancient or contemporary source by name, noting that "ancient writers" (in this case Isidore quoting Solinus) claimed the whale's belly would cover more than four acres of land, and that "some people allege" the whale's fabled impotence after intercourse. Albert suppresses the more fabulous aspects of the whale mentioned in the *Physiologus*: how its sweet breath attracts small fish to its mouth and how its mossy back resembles an island, which has caused sailors to moor to it, concentrating on a realistic and scientific account of

²⁹ Book VII, c.19 (fol. 112r); Boese (ed.), *Thomas* (as in n.2) 6.6 ll.35-47.

³⁰ See generally on these two early narratives Bernard Lewis, *The Muslim Discovery of Europe* (London 1982) 94-95. Ibrahim ibn Ya'qub's account of the manner in which the whalers jump on to the back of the animal and hammer in a large hook is given with French translation in André Miquel, "L'Europe occidentale dans la relation arabe de Ibrahim b. Ya'qub," *Annales ESC* 21 (1966) 1057-1058 and in an English translation by D.M. Dunlop, "The British Isles According to Medieval Arabic Authors," *Islamic Quarterly* 4 (1957) 19-20. See also James Fairley, *Irish Whales and Whaling* (Belfast 1981). I am indebted to Vicki Szabo for information on this point.

³¹ Scanlan (tr.), *Man and the Beasts* (as in n.4) 341.

the whale. The bulk of his discussion is given over to the methods of capturing whales, of which there are two. The first of these strategies is introduced in a manner which shows that it was adapted in its outlines from *Liber rerum* rather than from reports of whalers. "Navigators lead the crew to an area where whales are presumed to be found." There is no mention of the use of music to attract and stupefy the animal. The order of events is retained, however, and the harpoon is described in detail, especially its barbs, where *Liber rerum's* *rostri ferreis dentibus acuminatum* is much expanded. Albert retains the rest nearly verbatim. "Irritated by the salty water that seeps into its wounds, the whale rubs its body along the sea bed, thereby driving the harpoon points deeper and deeper into its body,"³² and he adds the key word "blood" to *Liber rerum's* *Mortuus ergo cethus fluitat super mare*, which better explains *quoad ut piscatores advertunt*.

From all of this evidence, I believe that it is clear that Albert took a good deal of his natural history material from Thomas without acknowledgement. Moreover, it is equally clear that the experiential topoi so common and distinctive in Albert may not reflect Albert's actual experience of nature, but have been added to the borrowed material to nationalise it to the *De animalibus*. By the comparisons I have made, I believe it is plain that Albert must share credit for his knowledge of natural history and skill at direct observation with the lost earlier writers, Experimentator and the author of the *Liber rerum*.

³² Scanlan (tr.), *Man and the Beasts* (as in n.4) 339-340.

BARTHOLOMAEUS ANGLICUS IN THE THIRTEENTH CENTURY

JURIS G. LIDAKA

Although my title is sufficiently vague for almost anything, it fits the work I shall focus on for the simple reason that the existence of this encyclopaedia is better attested than the reasons for its existence. What I mean by this is that the large number of surviving manuscripts and the mentions of it in medieval bequests, library catalogues, and other documents seem unjustified when we observe how rarely it is actually indicated as a source. So there is a mystery here: if so many people had access to it, why do so few actually seem to have used it, and how was it used? And that is the basis of what will follow.

The author is called Bartholomew the Englishman, though there is almost no evidence to substantiate anything else. At times he has also been called Bartholomew of Glanville, *Magister de proprietatibus*, and *Magister de bestiis*. In the late 1220s, he was in Paris presenting cursory lectures on the whole Bible. This implies he was studying for a divinity degree, since the cursory lectures were introductory surveys focusing on the literal sense of the Bible, not moral, allegorical, or anagogical.¹ He clearly joined the Franciscans, because in 1230 the Minister General appointed him lector in theology in Magdeburg, Saxony, after Simon the Englishman, who had been appointed the first lector in 1228 but who had died shortly afterwards.² He was allowed about a year to prepare for his duties, since it was only in 1231 that two friars were sent to bring Bartholomew and John (both called Englishmen) to Magdeburg, which at the time was the furthest outpost of the Franciscans in the north-

¹ For a historical discussion of reading cursorily, see Olga Weijers' *Terminologie des universités au XIII^e siècle* (Rome 1987) 329-35. About a century later, Pope Benedict II ruled that cursory lecturers must have finished at least six years of study—Henry Denifle, *Chartularium Universitatis Parisiensis* (Paris 1899-91; rpt. Bruxelles 1964) 2.463-65 (#1002), dated 20 June 1336.

² "Chronica Fratris Iordani a Iano," *Analecta Franciscana* 1 (1885) 1-19, at 16-17.

east.³ In 1247 he was apparently elected the minister provincial of Austria, and about eight years later provincial of Bohemia. If this is the same person, in 1257 the pope named him as legate to Poland and to Bohemia and its territories. These were just outside the Holy Roman Empire, and thus buffering it from the Mongols and the Hungarians. Around 1262 he returned to Saxony as minister provincial, and he apparently died in 1272.⁴

Bartholomew's membership in the early Franciscan order and in particular the estimated date of completion of his encyclopaedia come at a very interesting time. Briefly, St. Francis had died on 3 October 1226; in 1230-31, John Parenti had been Minister General for several years, supporting the efforts of provincial ministers and of the scholarly brethren, whose interests were further aided by Gregory's bull *Quo elongati* of 28 September 1230.⁵ However, in 1232 Brother Elias became Minister General, preferring more centralised power, pressing for a rather fundamentalist lifestyle for the members of the order, and working otherwise against the interests of the intellectuals. Elias sent visitors to examine the provinces and to ensure they observed strict poverty and simplicity, and, Salimbene complained, Elias even appointed lay provincial ministers. The visitors were perceived as hostile spies, and the intellectuals and priests resented the imposition of lay members in positions superior to those of the educated, arguing that such restructuring was destroying the Franciscan order. The situation in Germany may have been more troubled, for—though the Franciscans' aims were to help evangelise in these regions and, after around 1230, to send missionaries into the pagan lands further north and east—ensuring doctrinal soundness required educating the brethren. The Franciscans in Germany, moreover, recruited from the laity far more than did the Dominicans, and so education was even more a necessity.⁶ Given the lack of detailed information, we can only speculate about

³ *Ibid.* 18. On the geographical spread, cf. John B. Freed, *The Friars and German Society in the Thirteenth Century* (Cambridge, Mass. 1977) 67 and *passim*.

⁴ M.C. Seymour et al., eds., *Bartholomaeus Anglicus and His Encyclopedia* (Aldershot 1992) 10.

⁵ This summary generally follows John Moorman, *A History of the Franciscan Order: From Its Origins to the Year 1517* (Oxford 1968) 90-111.

⁶ Freed (as in n.3) 122-23 and *passim*.

the reasons for the silence of the sources concerning German provincial officials and activities in the 1230s and early 1240s; this is particularly curious since our main source of information is the chronicle of Jordanus de Yano, who spent most of his active life in Germany but who records almost nothing of the events after 1239, though he dictated his chronicle c. 1262 at the request of some Bartholomew, then Minister of Saxony. As a result of these events of the 1230s, when Bartholomew the Englishman arrived in Magdeburg and for quite some time afterwards—however long he was lector at the *studium*—he must have been charged with the education of many lay brothers who were quite unprepared for the expectations of the order as Bartholomew had come to understand them in his time in Paris, and thus his creation of the encyclopaedia may well have been a reaction to the low educational level of his keep. As Brother Elias' rule expanded until 1239, perhaps Bartholomew found his work on the encyclopaedia challenged in its reach beyond the simplicity and poverty Elias' visitors and supporters demanded. Then, with the fall of Elias, the unknown situation and whatever changes occurred in Germany may also have affected both Bartholomew and his encyclopaedia profoundly.

It was probably around 1240 that Bartholomew finished his encyclopaedia, if we go by what works he seemed to know and not to know.⁷ His purpose was explicitly to educate the rude and simple, as he put it in his introduction and largely repeated in his postscript.⁸ He intended his encyclopaedia to explain metaphorical and sometimes mystical meanings of things mentioned in scripture, so that those of little learning might come to learn more, perhaps later to proceed to greater things and more subtle. I find curious his repeated emphasis of "little," "simple," and "rude" here, and other passages also seem to indicate a reaction to the rule of Brother Elias. There is a tension or contradiction between Bartholomew's

⁷ The best recent discussion is Loris Sturlese, "Florilegi filosofici ed enciclopedie in Germania nella prima metà del duecento," *Giornale critico della filosofia Italiana* 10 (1990) 293-319, at 308-9. I cannot verify that Vincent of Beauvais used Bartholomew.

⁸ All references to the text will be by book and chapter numbers ("pro" for prologues) following Bartholomaeus Anglicus, *De rerum proprietatibus* (Frankfurt am Main 1601; reprinted 1964); here, the beginning *praefatio* and the closing *epilogus*. The glosses cited below come from the MSS.

apparent intent to explain only Biblical items—as in his comments noted by Sturlese and others—and the actuality of the coverage given in the encyclopaedia. That is, sprinkled throughout in various locations are comments that he will include only matters in the Bible, or in the Bible and the gloss.⁹ These comments are belied by the extensive actual inclusion of other contents and by the wide range of philosophical and even pagan authorities Bartholomew uses. The allegorising glosses, about which more later, also begin when it becomes fairly clear that subjects of more than a fundamental nature are being broached.

Perhaps the encyclopaedia's most intriguing dissemination in the thirteenth century is in the university of Paris *pecia* system. The two *taxatio* lists ("assessment" or "rates" lists) of 1275 and 1304 both list Bartholomew.¹⁰ The Rouses have argued that the lists referred to the Sens' bookshop, which specialised in "theology, philosophy, and canon law (along with a good sprinkling of preachers' handbooks)—with virtually no other faculty represented," certainly not the arts.¹¹ They even comment that "The *De proprietatibus rerum* of Bartholomaeus Anglicus is not an automatic nor obvious candidate for reproduction by university stationers."¹² I believe their understanding is that the work was to be used only as a reference tool, not a study guide or actual manual of instruction, for students at lower levels—in the arts. This may not have been the case. Graham Pollard's conclusion was that *pecia* products were "restricted within the universities to the services of the higher faculties, Civil and Canon Law and Theology, and do not apply to the Arts" because in the "Arts the teaching was *viva voce*."¹³

Bartholomew's encyclopaedia was not intended for use by highly educated theologians, philosophers, and lawyers, though at times it may have been so used. We know this from his own state-

⁹ Cf. 7.1, 8.1, 12.pro, 13.9, 14.pro, 15.pro, 17.pro, and 18.pro.

¹⁰ Denifle, *Chartularium* (as in n.1) 1.644-49 (#530) and 2.107-12 (#642).

¹¹ Mary A. Rouse and Richard H. Rouse, "The Book Trade at the University of Paris, ca. 1250-ca. 1350," in: *Authentic Witnesses: Approaches to Medieval Texts and Manuscripts* (Notre Dame 1991) 259-338, at 308.

¹² *Ibid.* 287.

¹³ Graham Pollard, "The *Pecia* System in the Medieval Universities," in: *Medieval Scribes, Manuscripts & Libraries: Essays Presented to N.R. Ker*, ed. M.B. Parkes and Andrew G. Watson (London 1978) 145-61, at 150.

ments, as shown earlier. It was not even really intended for students in the arts, nor does it seem to have been used by them—several guides for arts students in thirteenth-century Paris show no sign of Bartholomew's being explicitly used or studied.¹⁴ If we consider it a preacher's handbook, then its absence from these guides is understandable, given the specialty of the Sens' bookshop and thus the purpose of the *taxatio* lists, especially if the 1304 list were reorganised in part as a response to a possible change in the student body resulting from *Cum ex eo*.¹⁵ Interestingly, both lists include three encyclopaedic or general works: Bartholomew, Robert Kilwardby's survey of the sciences *De ortu scientiarum*, and John de Siccaville's short encyclopaedia. But evidence for their popularity varies widely: Bartholomew's survives in about 165 full or once full manuscripts, Kilwardby's in 18 full and two partial manuscripts, and Siccaville's in only two full and one partial manuscript.¹⁶ Whatever the causes for this apparent disparity in popularity, I know of only two extant manuscripts of Bartholomew said to have derived from the *pecia* system.¹⁷ I do believe that more may be found, because I may have detected changes of exemplars where *pecia* breaks may have occurred, when I tested for this some

¹⁴ Claude Lafleur, "Les 'Guides de l'étudiant' de la Faculté des arts de l'Université de Paris au XIII^e siècle," in: *Philosophy and Learning: Universities in the Middle Ages*, ed. Maarten J.F.M. Hoenen, J.H. Josef Schneider, and Georg Wieland (Leiden 1995) 137-199.

¹⁵ I owe this thought to Peter Binkley. The bull *Cum ex eo* (1298) set up a system of licensed study leave for new parish clergy. See Leonard Boyle, "The Constitution 'Cum ex eo' of Boniface VIII," *Mediaeval Studies* 24 (1962) 263-302; rpt. in: id., *Pastoral Care, Clerical Education and Canon Law, 1200-1400* (London 1981).

¹⁶ Respectively, Seymour et al. (as in n.4) 257-61; Robert Kilwardby, *De ortu scientiarum*, ed. Albert G. Judy (London 1976) xvii-xxxi; and Lynne Thorndike and Pearl Kibre, *A Catalogue of Incipits of Mediaeval Scientific Writings in Latin*, rev. ed. (Cambridge, Mass. 1963) 1125. Baudouin Van Den Abeele notes that Heinz Meyer has a list of 211 manuscripts of Bartholomaeus Anglicus, in his review of Seymour et al. in *Scriptorium* 48 (1994) 167-69 at 168.

¹⁷ The first is Paris, Bibliothèque Nationale MS. lat 16099, once owned by Peter of Limoges—Louis Jacques Bataillon, "Comptes de Pierre de Limoges pour la copie de livres," in: *La production du livre universitaire au moyen âge: exemplar et pecia*, eds. Louis J. Bataillon, Bertrand G. Guyot, Richard H. Rouse (Paris 1988) 265-272, at 269. The second is Troyes MS 470—Jacques-Guy Bougerol, *Les Manuscrits franciscains de la Bibliothèque de Troyes* (Grottaferrata 1982) 18.

years ago.¹⁸ How many more is, of course, a matter for future work.

The *taxatio* lists imply that Bartholomew remained somewhat popular, but they may also imply a change in perception concerning the encyclopaedia. The first, from around 1275, includes Bartholomew near the beginning, in a group which starts with basic theological works such as Gregory's *Originalia super Job* and other homilies, then moving to works such as Isidore's *De summo bono*, miscellaneous works of St. Bernard, and a collection of Anselm's works, before turning to Bartholomew, (probably) Neckam's *De naturis rerum*, Kilwardby's *De ortu scientiarum*, and John de Siccaville's encyclopaedia—the group as a whole appears to be general works of a basic, preparatory nature, and is followed by groups of more specific theology, then Aquinas, Petrus de Tarentasia, miscellaneous postils, Bonaventure, Bibles, and finally sermons. I do not think that listing Bartholomew right after Anselm and before Neckam implies that Bartholomew is seen as a transitional work between faith and nature, but simply listed first among the scientific guides.

The 1304 list is organised differently, however: it begins with groups of works by author—Aquinas, Nicolas of Gorham, Aegidius of Rome, and Richard Middleton—and it finishes with groups of law, philosophy, Albertus Magnus, and Aegidius again. Between Middleton and the legal texts is the group including Bartholomew, but the general composition of the group implies that it is intended for Bible study and for sermon preparation: the Bible, interpretation of the Bible, exposition of the Bible, prologues of the Bible, a concordance of the Bible, then *De proprietatibus rerum*, a *legenda sanctorum*, sermons of Nicholas Byard, distinctions of Byard, and more books of sermons.

Where the 1275 list indicated that the stationers considered Bartholomew's work to be an encyclopaedia for help in the bases of natural philosophy, by 1304 it seems to have become an important, basic work for materials out of which to compose sermons—not a how-to manual like the many *artes predicandi*, but a compendium

¹⁸ Juris Lidaka, "John Trevisa and the English and Continental Traditions of Bartholomaeus Anglicus' *De proprietatibus rerum*," *Essays in Medieval Studies* 5 (1988) 71-92, at 80-82.

to help preachers find or develop ideas. The universities expected theology students to deliver sermons regularly, so it is no surprise that they also seem to be the sources of the *artes predicandi* in the thirteenth and fourteenth centuries,¹⁹ and these general works would appeal to those of an earthy, practical nature, while those whose theological interests were more abstruse would lean towards more advanced work, whatever their preferences in preaching.

"C'est le sermon, la prédication, qui est le couronnement de tout enseignement théologique."²⁰ Over the course of the thirteenth century, the Rouses point out, the Church "increasingly recognised the sermon as a major instrument of the Church's ministry. As a natural concomitant, there was a marked increase in preaching, especially by preachers who were school-trained and, thus, more apt to use and to devise tools."²¹ The Rouses' statement applies to the early thirteenth century, but they make it clear that, over that century and into the next, preaching gained even more importance. Where in the late twelfth century the Church had focused on forbidding unlicensed preaching by the unlearned and heretics, by the late thirteenth century it urged its best servants to preach, as a result of the reforms of the Fourth Lateran Council, the preaching of the crusades, the issuing of indulgences to those who heard sermons—by a whole variety of institutions. Already around the beginning of the thirteenth century, "The masters of theology give implicit and explicit indications that a part at least of their task is the training of preachers."²² A century later, at the beginning of the fourteenth century, the statutes require all bachelors reading the *Sentences* to spend four years preaching, arguing, and responding, in this order.²³ So the faculty of theology cannot be separated from preaching, and since neither the masters nor the students dedicated their lives and careers to university activities, but commonly assumed positions of pastoral care, the booklists of the university stationers are much

¹⁹ For a short, recent survey, see Weijers, *Terminologie* (as in n.1) 378-81.

²⁰ P. Glorieux, "L'Enseignement au Moyen Age: Techniques et méthodes en usage à la Faculté de Théologie de Paris au XIII^e siècle," *AHDLMA* 35 (1968) 65-186, at 148.

²¹ Richard H. Rouse and Mary A. Rouse, *Preachers, Florilegia and Sermons: Studies on the Manipulus florum of Thomas of Ireland* (Toronto 1979) 43.

²² *Ibid.* 48.

²³ Denifle, *Chartularium* (as in n.1) 2.692, [13].

more closely related to popular sermons than we might have supposed.

Medieval library catalogues often included Bartholomew in subject groups that support this understanding. The 1382 catalogue of the Austin friars at York had full or partial copies among *Philosophia*, *Summe morales doctorum et sermones*, and *Sermones et materie sermonum*;²⁴ the Carmelites at Hulne added a copy to their catalogue of 1366, placing it among *Sermones cum materia pro eisdem*.²⁵ Work on medieval library catalogues is progressing slowly, but we can expect more on this point as they are published.²⁶ I note that all these catalogue entries are made in the late fourteenth-century or in the fifteenth.

A different approach to the question of the function of *De proprietatibus rerum* is to return to Bartholomew's expressed aims. When I worked on the text long ago, I was struck by the simple, matter-of-fact repetition of his authorities' recitals of reality. But Bartholomew explicitly claimed to be instructing readers in the spiritual significance of rude reality. Where was this significance laid out? In some passages it was apparent, but certainly not in most. It lies in the glosses, which were copied along with the text. For example, in Book 19, where Bartholomew discusses the number three and points out that Aristotle praised God by the that number, 18 of some 40 manuscripts I had on hand on microfilm had the gloss *Nota de frigiditate virili*, though this makes no sense. Two others lacked this particular gloss, and 13 lacked glosses in general. But one manuscript reads *Nota de firmitate virili* and four others

²⁴ K.W. Humphreys, *The Friars' Libraries*, Corpus of British Medieval Library Catalogues 1 (London 1990) A 8.285a, 286, 594a, and 599d. See Michael Twomey's paper in this volume, 350.

²⁵ *Ibid.* C.3.33.

²⁶ R. Sharpe, comp., *List of Identifications [for the British Academy--British Library Corpus of British Medieval Library Catalogues]*, 2nd ed. (London 1995) shows copies owned by the Augustinian canons at Lanthony (Gloucestershire) by 1361 and Leicester in the fifteenth century; the Benedictines at Glastonbury in the late thirteenth and early fourteenth centuries (2 copies), Norwich St. Leonard's in 1423, Norwich-Yarmouth c. 1425, Ramsey late fourteenth century, and Westminster 1376. These last six, plus one more at Norwich Cathedral in 1300-1301, are also listed in *English Benedictine Libraries: The Shorter Catalogues*, ed. R. Sharpe, J.P. Carley, R.M. Thomson, and A.G. Watson, Corpus of British Medieval Library Catalogues 4 (London 1996) B 40.13, 42.2, 57.24, 62.38, 64.4, 68.71, and 105.40.

agree but place the gloss later on, next to where the quadrangle is said to signify the stability of the Church and of the faithful soul. A composite text shows this more clearly:

*Nota de frigide-
ditate virili*

Ternarius est numerus ex unitatis additione ad binarium generatus, et est ternarius inter numeros sacratissimus quia in ipso totius Trinitatis vestigium invenitur, quia sicut prima unitas primi principii representat unitatem, sic ternarius personarum in Deo exprimit Trinitatem, Filii scilicet a Patre generationem, et Spiritus Sancti a Patre per Filium processionalitatem. In ternario siquidem adhibuit Aristoteles magnificare Deum sublimem et gloriosum, ut dicitur in libro De celo et mundo c. ii. Nam beatam Trinitatem clamat et predicat quelibet creatura que facta est a Deo trino et uno in numero, pondere, et mensura, ut dicitur libro Sapientie xi.

*Nota de firmi-
tate virili*

Ex additione unitatis ad ternarium quaternarius surgit, qui a figura quadrata nomen sumpsit, ut dicit Ysidorus. Forma autem quadrangula maxime stabilis est atque firma, et ideo maxime stabilitatem signat universalis ecclesie et firmitatem fidelis anime tam in virtutibus quam in scientia et doctrina, que comprehendit cum omnibus sanctis que sit longitudo, latitudo, sublimitas, et profundum. (19.116-117)

Clearly, there is a textual tradition here, with the bulk of the manuscripts having erred. This is confirmed in 18.51, where the loss of a column in some archetype leads four manuscripts to read *si quis fumigaverit domos formicarum, flores et germina et frondes corrodendo violent*—that is, if anyone fumigates the ants' homes, they ravage the flowers, buds, and foliage by gnawing away at them. This is clearly ridiculous, and the scribes knew it, for three of them discovered the missing text and added it in the bottom margin: but one adds just the text, another adds glosses at the sides, and the third places them inside the text but underlines them.²⁷

²⁷ Lidaka, "John Trevisa" (as in n.18) 79, 82. The marginalia have been discussed several times by Heinz Meyer, most recently in "Die Zielsetzung des Bartholomäus Anglicus in *De proprietatibus rerum*," in: *Geistliche Aspekte mittelal-*

One step forwards is to observe how widely these glosses are represented in the manuscript tradition. I have quickly scanned 17 complete manuscripts (or only about 10% of those surviving) that I had in microform, and noted whether a book or chapter had marginal glosses that allegorised the contents; I have not noted whether the glosses were the same in all the manuscripts. This method is admittedly prone to error for two reasons: the glosses moved around in their general location in relation to the text (as indicated above), and glosses were often insufficiently legible in my microfilms or microfiche, so I often gave a manuscript the benefit of the doubt. So although the details are highly suspect, the general picture has some value as an aid to further study.

Two broad conclusions are readily apparent from this unscientific survey, which does not establish the identity of the glossator: the earlier manuscripts tended to copy the glosses along with the text, while the later ones started to copy the text alone; and the glosses do not begin until the text passes from matters that need no allegorising or moralising to particulars.²⁸ That is, there are no glosses for God, the angels, the soul, and the four elements that make up all bodies, but the glossing begins where 4.5 turns to food and drink. Then the glossing continues until 14.3, where the text moves from land and mountains in general to particular mountains, starting with Mt. Ararat. This lack of glossing continues through book 15 on human geography and political territories. Perhaps Biblical and extra-Biblical locations did not warrant glossing, but this does not explain why stones and gems are not glossed at all in Book 16, although the glossing resumes with plants in Book 17. Then the glossing continues largely uninterrupted until 19.11-41, after which it seems to become spottier as the scribes, and perhaps Bartholomew, sensed the end of the whole work approaching.

The lack of glosses at 19.11-41, with the curious partial resumption in 19.42 and the general lack of glosses at certain other isolated chapters, calls for a closer look. The transition from 19.10 to 19.11 is one of content: colour in general to particular colours, which continue until 19.37 on smells or odours; 19.40 moves to tastes or flavours briefly before 19.41 introduces sweetness, and

²⁸ The partial glossing has been observed briefly before by Sturlese, "Florilegi filosofici" (as in n.7) 319.

which continue until 19.37 on smells or odours; 19.40 moves to tastes or flavours briefly before 19.41 introduces sweetness, and the gloss resumes about the middle of 19.42 on sweetness in greater detail. Though the earlier portion of this gap may have been intentional, the resumption of glosses in the middle of a chapter makes it look more likely that at least some of this is due to a loss of copy-text early in the tradition: as though perhaps the glossator had been in the process of glossing after or during the compilation of the encyclopaedia, and the glossed version of some draft had been lost here, while the unglossed version was available, and the two were combined at this point. If this were the case, then we may posit that Book 16 on stones and gems may have been intended to receive a gloss, but never did, unless the few that survive in one manuscript and very partly in another are rare exceptions.

A slightly disordered text may also explain why the last few books' selection of glossed chapters is so variable and why some chapters seem to lack glosses. In a few cases, there may not have been any glosses on short and extremely short chapters, such as 7.10 on anise, 18.33 on the snake, 18.51 on the ant lion, 18.91 on the leech, 19.81-82 on goose and duck eggs, 19.93 on crane eggs, 19.97 on crab eggs, 19.139 on rhythmic harmony, and 19.144 on the cymbal, gong, or bell. But it may be incompleteness of glossing that left other chapters unglossed—18.79 on sheep, 19.63 on cows' milk, and 19.118 on the number five. The very spotty glosses in 19.127-31 and 19.146 are no doubt the product of a poor copy early in the textual tradition, since the chapter divisions virtually break down in these sections (which cover a hodgepodge of many topics), as I found earlier when editing this portion of Book 19.²⁹ Perhaps Bartholomew was still working to finish and polish the end of this long work, though he never did, and this might account for the textual and glossarial peculiarities. The text earlier seems fairly well set, though not in all locations, and the gloss more complete.

But this is all hypothetical, and practical evidence is necessary to support the notion that Bartholomew may have been read with alle-

²⁹ Juris Lidaka, "Bartholomaeus Anglicus' *De proprietatibus rerum*, Book XIX, Chapters on Mathematics, Measures, and Music: A Critical Edition of the Latin Text in England" (Ph.D. diss., Northern Illinois University 1987). See also my "John Trevisa" (as in n.18).

gorical significances in mind, especially since writers rarely indicate Bartholomew as a source. The only thing to do is to investigate who used Bartholomew and how. Clearly, since Bartholomew was often placed among materials for preparing sermons, then sermons are the obvious place to look, and we do find him there—in fact, he is cited in sermons and sermon aids more often than in any other kind of work. We are unfortunate in not having enough of the sermon aids published yet. Though Welter discussed quite a few *exempla* collections in 1927, many remain unedited or are difficult to obtain.³⁰ The sources of Welter's collections show that already in the thirteenth century the *De proprietatibus rerum* was used by Étienne de Bourbon in his *Tractatus de diversis materiis praedicabilibus* just after 1250, and before 1300 by Servasanto di Faenza in his *Summa de exemplis contra curiosos*, the *Recueil du frère Sachet*, the *Tabula exemplorum*, and the *Speculum laicorum*.³¹ Only the last two of these have been published, and only in highly extracted form;³² I have not been able to verify their use of Bartholomew. Even among sermons, which seem to be better published, this appearance is not the reality, for by and large a "difficulty with this type of inquiry is the lack of editions of medieval Sunday sermons" of the kind in which Bartholomew's encyclopaedia is most likely to have been used; that is, "the greater number of scholars have worked to publish, not collections, but sermons on themes of particular interest to them,"³³ while the *exempla* or other references from *De proprietatibus rerum* tend to appear in more popular and mundane texts, not in texts for the more educated or specialised.

This is the state of affairs in studying Bartholomew the Eng-

³⁰ J.-Th. Welter, *L'Exemplum dans la littérature religieuse et didactique du moyen âge*, Bibliothèque d'histoire ecclésiastique de France (Paris 1927).

³¹ Jacques Berlioz and Marie-Anne Polo de Beaulieu, "Les Recueils d'*exempla* et la diffusion de l'encyclopédisme médiéval," in: *L'enciclopedia medievale*, ed. Michelangelo Picone (Ravenna 1994) 208.

³² Both by J.-Th. Welter: *Le Speculum laicorum: Edition d'une collection d'exempla composée en Angleterre à la fin du XIII^e siècle* (Paris 1914), and *La Tabula exemplorum secundum ordinem alphabeti: Recueil d'exempla compilé en France à la fin du XIII^e siècle* (Paris 1926).

³³ L.-J. Bataillon, "Early Scholastic and Mendicant Preaching as Exegesis of Scripture," in: *Ad litteram: Authoritative Texts and Their Medieval Readers*, ed. Mark D. Jordan and Kent Emery, Jr., Notre Dame Conferences in Medieval Studies 3 (Notre Dame 1992) 165-98, at 166.

lishman and his encyclopaedia. Although written as an elementary guide so the "rude and simple" might begin to understand the spiritual meaning of the natural world, by the late thirteenth century its value as an introduction to natural philosophy and its value as precisely that kind of guide were seen by both the university community and the preaching community—we glean this from the two taxatio lists, the sermons, and elsewhere. The glosses may have helped to find the spiritual meanings, but more likely the glosses were considered to be suggested interpretations, not authoritative determinations of meaning. This is most clear in a gloss on the porcupine gathering apples (18.61): *Nota de aggregacione diviciarum temporalium uel spiritualium*. If one reads the passage in terms of temporal wealth, then the porcupine's gathering apples signifies one kind of vice, but if one reads in terms of spiritual wealth then the activity signifies a virtue. In addition, the tradition of the glosses shows that their wording changed and even their location changed, and at least Pierre de Limoges' manuscript shows corrections of the glosses and not just of the text.

This use, and the origin of the encyclopaedia amid the turbulence in the north-east at the end of Brother Elias' tenure, help explain both the perceived reception of the text and the state of the text and its glosses. Since the German friars in the 1230s were evangelising at home and going on missions further away, they had to be provided with material useful for preaching and for converting; the biblical and non-biblical contents and the glosses would help in all of these matters. As a general introduction, *De proprietatibus rerum* aided those who needed help in finding material: this made it useful for libraries and for the less advanced, but it would not be of much value to the well educated. The evidence summarised briefly here for the reception and history of *De proprietatibus rerum* in the thirteenth century places it squarely at such a lower level of readership. By the late fourteenth century, the encyclopaedia's value—both as a compendium of knowledge surveying almost all of creation and as a preachers' tool—prompted translations into the vernacular and uses in different kinds of texts. Over the fifteenth century, though its use in popular religion diminished, its use as an encyclopaedia did not, for it was of a handy size—not so small as to omit much information, but certainly not so large that it

would be an impractical possession for most people.³⁴

³⁴ Portions of this paper were presented earlier to the Twenty-ninth International Congress on Medieval Studies, 1994, Western Michigan University (Kalamazoo), and to the Harvard University, Dept. of English, Medieval Doctoral Conference, 21 March 1996.

MEDIEVAL KNOWLEDGE IN MODERN READING:
A FIFTEENTH-CENTURY ARABIC ENCYCLOPAEDIA OF
OMNI RE SCIBILI

ULRICH MARZOLPH

In 1981, when the Lebanese capital of Beirut still remained in the firm grip of civil war, one of the most inspiring intellectual events in the city was the weekly meeting in the house of Iḥsān ‘Abbās, a renowned Palestinian specialist in Arabic history and classical Arabic literature. When on one of these occasions, I asked him about the fifteenth-century Arabic encyclopaedia called *al-Mustaṭraf*, I was astonished to see him frown and actually advise me not to mention the subject to him again. It was only several weeks later that he informed me about the reason for his harsh reaction: Iḥsān ‘Abbās told me that when he was growing up, the major reading matter available to satisfy his curiosity, in fact the only book in the home of his family besides the Qoran, the holy book of Islam, had been the *Mustaṭraf*—so he knew it almost by heart and was reluctant to confront his memory. Unfortunately, we never managed to discuss the *Mustaṭraf* in depth, but since this experience I think of the *Mustaṭraf* as a kind of *Hausbuch* of the average intellectual family in the Arab world.

Any effort to evaluate the *Mustaṭraf*’s position at the turn of the twentieth century not only leads to a discussion of its individual qualities but also necessitates a number of preliminary remarks sketching the historical and literary background of its genesis.

As for the *historical dimension*, Arabic literature is conventionally divided by analogy to political events into three major periods designated classical, intermediary (post-classical, pre-modern), and modern. The classical period began with the oral literature of pre-Islamic times, had its first major authors in the ninth century C.E. and lasted until the Mongol invasion and the resulting abolishment of the Abbasid caliphate in 1258. The intermediary period, lasting until the end of the eighteenth century, is seen by most Western as well as Islamic scholars predominantly as a period of cultural decline and decadence with few literary products deserving serious

attention; accordingly, only a minute percentage of the literary production of this period has been researched. In terms of literature, this decadence is usually seen in the small number of original, individual, inspiring, or simply new contributions: authors tended to produce highly repetitive compilations of the achievements of the classical period. It is to this period that the *Mustaṭraf* belongs. The modern period was initiated by Napoleon's Egyptian expedition and the ensuing developments, confronting the Arab world with the achievements of the West. In literature, this confrontation on the one hand resulted in a definite break with tradition and the formation of modern literature as influenced by Western models and ideas; on the other hand it led to a conscious appreciation of the heritage of classical Arabic literature, most of whose major works have become available in critical editions.

As for the *literary dimension*, the *Mustaṭraf* belongs to the genre of *adab*-literature, a genre which aims at combining instruction and entertainment, conveying knowledge in a diverting manner and employing entertaining topics in order to present and discuss serious moral and ethical matters. Moreover, the *Mustaṭraf* belongs to the category of encyclopaedia, or more specifically, the *adab*-encyclopaedia, a category which had already been established by a number of basic works in the ninth and tenth centuries, and to which the *Mustaṭraf* represents the last major contribution. So the *Mustaṭraf*'s genesis is to be seen against the specific background of a literary product summing up previous knowledge in a period of cultural decline.

In comparison with many other authors of the medieval period, the known facts about the *Mustaṭraf*'s author form a relatively clear picture.¹ His name was Bahā'addīn Abū 'l-Faṭḥ Muḥammad ibn Aḥmad ibn Maṣṣūr al-Ibšīhī. He was born around the year 790/1388 in the village of Abšūya in the Fayyūm (Upper Egypt),

¹ The most comprehensive presentation of Ibšīhī's biography is given by T. Paajanen, *Scribal Treatment of the Literary and Vernacular Proverbs of al-Mustaṭraf in 15th-17th Century Manuscripts. With special reference to diglossic variation* (Helsinki 1995) 15-21 (Studia Orientalia 77). Paajanen's book is a detailed study of the *Mustaṭraf*'s chapter on proverbial sayings (6), making this the only chapter so far covered by extensive research. On the position of the proverbial chapter in Arabic tradition see also R. Sellheim, "Eine fünfte Miszelle zur arabischen Sprichwörterkunde," *Oriens* 32 (1990) 463-475, at 469.

whence his epithet al-Abšīhi, more commonly al-Ibšīhi. He was educated in the traditional fields of knowledge such as theology, jurisprudence, and grammar, is known to have received lessons in Cairo from Jalāladdīn al-Bulqīnī, probably was close to Šūfī-circles and appears to have made a living following his father's profession as a preacher. He is said to have died after the year 850/1446. The entry devoted to him in the biographical dictionary of eminent men of the ninth/fifteenth century compiled by his contemporary as-Saḥāwī (d. 902/1497)² describes him as a productive writer and author of several other works besides the *Mustaṭraf*, but also criticises a certain laxity and inexactitude in grammatical correctness, a verdict amounting to an implicit warning against the reliability of the way he presents his material.

The *Mustaṭraf*'s full rhyming title is *al-Mustaṭraf fī kullī fannin mustaṭraf*, roughly to be translated "The most appreciated precious topics from every art regarded as elegant." The French translation by Gustav Rat renders the title as "Recueil de morceaux choisis ça et là dans toutes les branches de connaissances réputées et attrayantes";³ and Joseph von Hammer-Purgstall imitates the Arabic rhyme in his German equivalent "Das Entzückende aus allen Kenntnissen Pflückende."⁴ The *Mustaṭraf* has been characterised by Western scholars as "a vast encyclopaedia of *omni re scibili*,"⁵ intending to inform the reader *de rebus omnibus et quibusdam aliis*,⁶ a veritable "*Dictionnaire de conversation*"⁷ treating just

² Šamsaddīn Muḥammad ibn 'Abdarrahmān as-Saḥāwī: *aḍ-Ḍaw' al-lāmi' li-ahl al-qarn at-tāsi'* (repr. Beirut s.a.) 7.109.

³ *Al-Mustaṭraf*, tr. G. Rat, 2 vols. (Paris/Toulon 1899-1902). For reviews and related commentaries up to about 1905, see V. Chauvin, *Bibliographie des ouvrages arabes ou relatifs aux arabes publiés dans l'Europe chrétienne de 1810 à 1885* (Liège/Leipzig 1892-1922) 9.64-65, no.86.

⁴ J. von Hammer-Purgstall, "Bericht über die in den letzten vier Jahren 1845, 46, 47 und 48 zu Constantinopel gedruckten und lithographirten Werke," *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften* 3,2 (1849) 126-137, 174-182, 251-261, 266-275, 310-315; concerning the *Mustaṭraf* see 255-261, 266-273, at 255.

⁵ J.-C. Vadet, "al-Ibšīhi," in: *Encyclopaedia of Islam* (Leiden/London 1979) 3.1005-1006, at 1005, rendering the statement as supplied in Rat, *Mostaṭraf* (as in n.3) author's preface, 1.vii.

⁶ *Orientalistische Literatur-Zeitung* 6 (1903) 289 (H. Reckendorf).

⁷ *Journal asiatique* 19,15/1 (1900) 388 (J. Houdas).

about every topic a fourteenth-century Muslim ought to be informed about,⁸ a “populäre Moralenzyklopädie,”⁹ in general a “fully-fledged representative of Arabic encyclopaedic literature.”¹⁰ Ibšihī himself outlined the aim of his compilation in his introductory remarks by first referring to previous authors who had collected “literary subjects, pious exhortations and moral instructions” besides presenting “voluminous books on history, anecdotes, tales, stories, witticisms and delicate poetry.”¹¹ Though he agrees with the merits of those previous compilations, he judges his own work as more comprehensive and more systematically arranged—“so that its reader can find in it everything he looks for and wishes,” and so that anyone studying its list of contents can immediately identify the topic he is looking for.

The *Mustaṭraf* is almost exclusively a compilation of material available in previous sources. Ibšihī explicitly acknowledges his indebtedness to two previous *adab*-encyclopaedias: *Kitāb al-‘Iqd* by Ibn ‘Abdrabbih (d. 327/949) and *Rabī‘ al-ābrār* by az-Zamahšarī (d. 538/1144). In addition to these he has exploited a large number of other works of theological, historical, and *adab*-literature,¹² some of which are mentioned at various places in his book. The author’s personal contribution to his work is minimal, restricting itself—according to the recent analysis by Timo Paa-janen¹³—to four categories:

1. Brief comments and requests addressed to the reader concerning the subject at hand
2. Summaries at the beginning or the end of chapters and [...] short remarks serving as transitional material
3. Descriptions of events based on al-Ibšihī’s personal experience

⁸ C. Pellat, “Les encyclopédies dans le monde arabe,” in: id., *Études sur l’histoire socio-culturelle de l’Islam* (London 1976) 631638, at 642 (“tout ce qu’un Musulman moyen doit savoir”).

⁹ *Literarisches Centralblatt* 54, 29 (1903) 982 (C. F. Seybold).

¹⁰ Paa-janen, *Proverbs* (as in n.1) 20.

¹¹ A concise listing of traditional narrative material in the *Mustaṭraf* is supplied by U. Marzolph, “Ibšihī,” in: *Enzyklopädie des Märchens* (Berlin/New York 1993) 7.610.

¹² Summarised following Rat, *Mostaṭraf* (as in n.3) by Paa-janen, *Proverbs* (as in n.1) 20, n.2.

¹³ Paa-janen, *Proverbs* (as in n.1) 21, with references in n.36.

4. Insertions of his own verses and poems in the text

Furthermore, a recent Arabic editor of the *Mustaṭraf*¹⁴ has pointed out that Ibšihī probably owes more to the *Kitāb al-ʿIqd* than a body of borrowed material, but probably even modelled the title of his own book on a remark in the introductory passage in which Ibn ʿAbdrabbih explicitly mentions a tale (*ḥabar*) “regarded as elegant,” using the same word *mustaṭraf* later employed by Ibšihī in coining the title of his encyclopaedia.

The *Mustaṭraf* contains a total of 84 chapters. Jean-Claude Vadet, the author of the entry on Ibšihī in the *Encyclopaedia of Islam*,¹⁵ has made the only attempt at analysing the *Mustaṭraf*’s larger groups of chapters treating similar topics:

- chapters 1-16: human mind and the natural lights of reason: religion, wisdom, good customs, various talents
- chapters 17-22: a sort of treatise on society and its most characteristic categories
- chapters 23-51: “pure” morality
- chapters 52-76: various thoughts on the marvels of nature and the profane arts of poetry and music

Vadet’s grouping is admittedly rough. It constitutes a first attempt at deciphering a system which obviously does not disclose itself easily. On the other hand, there is no absolute necessity to presuppose a systematic arrangement of the material in the *Mustaṭraf*. Arabic *adab*-encyclopaedias usually work with a fair amount of associative criteria often resulting in a kind of “holistic” creative chaos, and the *Mustaṭraf*’s author is right in underlining the comparatively strict organisation of his own work. And yet, though this may be predominantly the obsession of a Western analytic mind, it is unsatisfying not to be able to discover a master-plan in the *Mustaṭraf*’s inner structure.

In this respect, it seems worthwhile to consider again the role of the *Kitāb al-ʿIqd* as model, pointed out by ʿAbdallāh Anīs aṭ-Ṭabbāʿ. In addition to moulding the title of his encyclopaedia on the quotation from the *Kitāb al-ʿIqd*, Ibšihī might have drawn some inspiration for the arrangement of his material from Ibn ʿAbdrabbih, the chapters of whose book are arranged as a necklace

¹⁴ Ed. ʿAbdallāh Anīs aṭ-Ṭabbāʿ (Beirut 1981) 20.

¹⁵ Vadet, “al-Ibšihī” (as in n.5).

(*'iqd*) of precious stones, lined up in symmetrical sequence of twelve jewels on each side around a centrepiece, thus amounting to 25 chapters altogether. Though it is not possible to decipher a strict arrangement of chapters in the *Mustaṭraf* comparable to the parallel naming of chapters in the *'Iqd*, there are some striking similarities in structure. A closer examination of the *Mustaṭraf* at first reveals a frame of predominantly religious topics: the opening chapters deal with the basic tenets of the Islamic creed (1) and the Qoran (3), besides discussing (as equally basic, yet subordinate elements) reason, intelligence and stupidity (2);¹⁶ the concluding chapters (77-83), on the other hand, while abruptly following the merry chapters on women, wine, jokes and anecdotes (73-76), close the frame with an intense *memento mori* elaborating prayer, destiny, repentance, illness, death, patience, and the uselessness of attaching oneself to this world. A final chapter (84) praises the prophet Mohammed. This predominantly religious frame is filled by two halves of unequal length, the first of which (chapters 5-45) focuses on moral and ethical qualities while the second deals with distracting (46-62) and entertaining (63-76) matters. Within this general description, several groups of between two to seven chapters with a common theme can be identified, following one another like rough jewels on a string:

- 5-9: language
- 10-13: virtues and vices
- 14-20: government
- 21-25: social life
- 30-31: saints
- 40-41: courage
- 46-48: the body
- 63-67: wonders of creation
- 68-73: entertainment
- 75-76: jocular narratives

Some of the chapters are arranged according to the principle of contrasts, such as 19-20: justice and injustice, 26-27: modesty and pride, 33-34: generosity and stinginess, 51-52: richness and poverty; others follow with a loose or even without any apparent con-

¹⁶ F. Rosenthal, *Knowledge Triumphant. The Concept of Knowledge in Medieval Islam* (Leiden 1970) 274-275.

nection to the previously treated topics, such as 35: table-manners following 34: stinginess; 50: travel following 49: names; 59: the ancient Arabs following 58: slavery.

The *Mustaṭraf* has been known to Western scholars at least since the early eighteenth century, when it was the subject of a short entry in Barthélemy d'Herbelot's *Bibliothèque orientale* (originally published in 1697), the first encyclopaedia of Islam ever conceived.¹⁷ The fact that its "overall plan is less easy to discern"¹⁸ has prompted a number of highly critical evaluations, most of them published in contemporary reviews by leading Arabists of the time of Gustav Rat's French translation,¹⁹ which appeared in two volumes in 1899 and 1902—making the *Mustaṭraf* the only Arabic encyclopaedia to be translated in full into a European language. René Basset regards the lack of originality as a characteristic trait of this kind of literary work, and of that of Ibšihī in particular, to whom he concedes "peu de personnalité";²⁰ Maurice Gaudefroyes-Demombynes sees the *Mustaṭraf* as an important source of second hand information, extracted in the course of the extensive and varied readings of a good scholar, who—without aiming to think himself [!] ("sans chercher à penser par lui-même")—wanted to leave the fruits of his efforts as a heritage for his fellow-citizens.²¹ While Hermann Reckendorf laments a lack of (intellectual) depth,²² Baron Bernard Carra de Vaux senses a "multitude of treasures" in the *Mustaṭraf*, but advises us first to work the ore so the pure metal can

¹⁷ *Bibliothèque orientale, ou Dictionnaire universel, contenant généralement Tout ce qui regarde le connoissance des Peuples de l'Orient. [...] par Monsieur d'Herbelot* (Maestricht 1776) 634 qualifies the *Mustaṭraf* as "un Florilege d'élégances Arabiques." On d'Herbelot see H. Laurens, *Aux Sources de l'Orientalisme. La Bibliothèque Orientale de Barthélemy D'Herbelot* (Paris 1978) and the criticism most pointedly voiced in E.W. Said, *Orientalism* (New York 1978) *passim*.

¹⁸ H. Kilpatrick, "A Genre in Classical Arabic Literature: The *Adab* Encyclopedia," in: R. Hillenbrand, *Union Européenne des Arabisants et Islamisants. 10th Congress. Proceedings* (Edinburgh 1982) 34-42, at 35.

¹⁹ Rat, *Mostaṭraf* (as in n.3).

²⁰ *Revue de l'histoire des religions* 41 (1990) 401-417, at 401.

²¹ *Revue critique d'histoire et de littérature* 37,2 (1903) 124-125, at 125.

²² *Orientalistische Literatur-Zeitung* 6 (1903) 290: "In die Tiefe freilich geht das Werk nirgends."

show.²³ Michael Jan de Goeje at least concedes an "honourable position"²⁴ for the *Mustaṭraf*.

While several specific essays on Egyptian encyclopaedic literature towards the end of the Middle Ages treat their subject without even so much as mentioning the *Mustaṭraf*²⁵—which in itself appears to be a judgmental measure—few evaluations are predominantly positive. Thus, Joseph von Hammer-Purgstall while introducing the *Mustaṭraf*'s Turkish translation speaks of one of the most famous Arabic anthologies and one of the most important, instructive and entertaining encyclopaedias;²⁶ Max Weisweiler regards the book as a brilliant supplement to Ibn 'Abdrabbih's compilation;²⁷ Sergej Shuiskii in a short encyclopaedic survey qualifies the *Mustaṭraf* as one of the "practical handbooks that are real treasure troves of cultural data."²⁸ Yet in most of the more recent statements, a highly critical attitude prevails. For Jean-Claude Vadet the *Mustaṭraf* is a "rather clumsy work" with a "rather haphazard arrangement" which however he admits not to be "entirely illogical."²⁹ Hartmut Fähndrich sees in the *Mustaṭraf* an inner, material continuity of this kind of *adab*-literature through the centuries, but clearly discerns a limited intellectual capacity ("begrenztere geistige Fähigkeiten") in its author.³⁰ And Franz Rosenthal in his discussion of the presentation of knowledge in what he labels "*adab* anthologies" is wise enough not to qualify the *Mustaṭraf* at all, but

²³ *Revue critique d'histoire et de littérature* 34,2 (1900) 370-373, at 369.

²⁴ *Deutsche Literaturzeitung* 24 (1903) 466-467, at 466.

²⁵ G. Wiet, "Les classiques du scribe égyptien au XV^e siècle," *Studia islamica* 18 (1963) 41-80 (exclusively on Qalqaṣandī); R. Blachère, "Quelques réflexions sur les formes de l'encyclopédisme en Égypte et en Syrie du VIII^e/XIV^e siècle à la fin du XI^e/XV^e siècle," *Bulletin des études orientales* 23 (1970) 719 (on Nuwairī, 'Umārī, and Qalqaṣandī); M. Chapoutot-Remadi, "Les encyclopédies arabes de la fin du Moyen Age," in: A. Becq (ed.), *L'Encyclopédisme. Actes du Colloque de Caen 12-16 janvier 1987* (Paris 1991) 267-279 (on Waṭwāt, Nuwairī, 'Umārī, Qalqaṣandī).

²⁶ Hammer-Purgstall, "Bericht" (as in n.4) 255, 256.

²⁷ M. Weisweiler, *Arabische Märchen* (Düsseldorf/Köln 1966) 2.287.

²⁸ S. Shuiskii, "Encyclopedias and Dictionaries, Arabic and Persian," in: *Dictionary of the Middle Ages* (New York 1984) 4.442-446, at 445.

²⁹ Vadet, "al-Ibshihī" (as in n.5).

³⁰ H. Fähndrich, "Der Begriff »adab« und sein literarischer Niederschlag," in: W. Heinrichs (ed.), *Neues Handbuch der Literaturwissenschaft*, vol. 5: *Orientalisches Mittelalter* (Wiesbaden 1990) 319-345, at 335.

makes it clear that he finds it difficult when characterising Ibšīhī's achievement to "speak of a development."³¹

The critical and even devastating evaluation by Western scholars is in sharp contrast to the *Mustaṭraf*'s unquestioned appreciation in its original environment. Most major libraries in East and West contain one or more manuscripts of the *Mustaṭraf*, some of them compiled comparatively close to the author's lifetime;³² Ibšīhī's actual autograph, however, has not yet been identified. A number of imitations and extracts prepared by later Arabic authors³³ demonstrate the *Mustaṭraf*'s popularity, as does the (enlarged) Turkish translation prepared by Es'ad Efendi at the beginning of the nineteenth century.³⁴ As a matter of fact, the rich manuscript tradition of the *Mustaṭraf* appears to have given way to an equally rich tradition in print since about the middle of the nineteenth century. Between 1850 and 1950 the *Mustaṭraf* was printed (in Būlāq or Cairo) probably up to twenty times, and since then the Cairo editions have been republished numerous times in photostatic reprints (in Beirut); the book was finally published in modern type (and in an allegedly first critical edition relying on several, though undisclosed, manuscripts) in the early 1980s.³⁵ In the 1990s, Beirut publishers even produce small excerpts almost of a chapbook character with titles such as *al-Mustaṭraf min al-Mustaṭraf* ("The most elegant pieces from *al-Mustaṭraf*") clearly aiming at a reading public with limited financial means such as those buying from the numerous sidewalk peddlers and newspaper stands in the big cities of the Arab world. Both recent Arabic editors of the *Mustaṭraf* stand to its defence, not so much against the Orientalist criticism, but rather against critical evaluations such as the one stated in as-Saḥāwī's biographical dictionary.³⁶ Mufid Qumaiḥa stresses the author's intention to support

³¹ Rosenthal, *Knowledge* (as in n.16) 274.

³² Paajanen, *Proverbs* (as in n.1) 22-30, 257-258.

³³ C. Brockelmann, *Geschichte der arabischen Literatur*, 2nd ed. (Leiden 1943) 2.68; *Supplement* (Leiden 1938) 2.55-56.

³⁴ See Hammer-Purgstall, "Bericht" (as in n.4).

³⁵ Ed. 'Abdallāh Anīs aṭ-Ṭabbā' (as in n.14); ed. Mufid Qumaiḥa (Beirut 1983), 2 vols. I would like to thank Hilary Kilpatrick for pointing out to me the new edition by Darwīš al-Guwaīdī (Beirut 1996) as advertised in *Sulaiman's Bookshop List* no. 92 (January-March 1996).

³⁶ as-Saḥāwī, *Daw'* (as in n.2).

and strengthen human qualities and underlines his effort to employ simple yet illustrative passages from the Qoran and the prophet Mohammed's sayings, "which enter the heart and the mind without any obstacle"; furthermore, he stands up against those who regard Ibšihī as an uninspired compiler, a *Materialhuber* (Arabic *ḡammā'*), by underlining the *Mustaṭraf*'s character as the product of an intentional educational process.³⁷ 'Abdallāh Anīs aṭ-Ṭabbā' points out the *Iqd*'s role as model, defends Ibšihī against the reproach of grammatical laxity, and advertises the *Mustaṭraf* as a direct successor to the model compilations of the classical period, labelling it as "book of the books, treasure of traditional literature, and ultimate goal to be attained."³⁸

Both views, the nationalist praise as well as the Orientalist criticism, miss an essential point, probably *the* essential point constituting the *Mustaṭraf*'s timeless importance and responsible for its privileged position over a period of more than five centuries. True, the *Mustaṭraf*'s author may not claim to be an original thinker, which in the eyes of Western criticism would alone deserve recognition and praise. Yet, as I have elaborated in a different context,³⁹ and as is similarly the case in the field of European compilations of the Middle Ages and the Renaissance, in contemporary opinion a work did not necessarily have to have an individual approach in order to deserve high esteem. As for Arabic compilations, the individual contribution of an author often did not consist in *what* was presented, but rather in *how* he presented it. The raw material would be regarded as a kind of common stock which everyone was entitled to exploit, and the achievement of an author would be judged according to the quality of the authorities he quoted from and the individual way in which he organised his material.

In this respect the *Mustaṭraf* has achieved incomparably more than any of its successors. First, the material is presented in a comparatively structured way in chapters which are easy to locate; second, the presentation of material within the respective chapters

³⁷ Qumaiḥa (ed.), *Mustaṭraf* (as in n.35) 58.

³⁸ aṭ-Ṭabbā' (ed.), *Mustaṭraf* (as in n.14) 23.

³⁹ U. Marzolph, *Arabia ridens. Die humoristische Kurzprosa der frühen adab-Literatur im internationalen Traditionsgeflecht*, 2 vols. (Frankfurt am Main 1992) 1.60-66.

follows a pattern which is both traditionally accepted and convincing: introductory passages from the Qoran are followed by sayings of the prophet Mohammed; next come those of his companions, until the level of presentation gradually descends from the sacred to the profane, to anecdotes and poetic verses;⁴⁰ third, and most important, the complete work does not comprise more than a single volume. This makes the *Mustaṭraf* the first major representative of the genre of encyclopaedic *vademecum*, a book which not only offers its rich treasury of traditional knowledge in the dignified and secluded atmosphere of public or private libraries, but which is available as a constant mobile companion, supplying ready reference for questions on all vital subjects of everyday life.

Given its unique position of addressing a large audience, it is important to recall the nature of the *Mustaṭraf*'s material. On the one hand, it is of a definitely traditional nature. Ibšīhī has picked the "most appreciated precious topics from every art (traditionally) regarded as elegant." Yet he has arranged the material in a specific order, and his distinct imprint implicitly reveals itself in the choice of topics as well as their arrangement. Charles Pellat, for instance, has pointed out the significant position of the *Mustaṭraf*'s last chapter (84) on the praise of the prophet Mohammed. According to Pellat, Ibšīhī's contemporaries in the fifteenth century were well aware of the fact that the cultural and political decadence they faced did not leave much choice but to ask God's blessing for the prophet Mohammed and his community, hoping that the situation could be improved and the glory of Islam would be restored.⁴¹ Franz Rosenthal has emphasised the position of the chapter on knowledge (2), ranking only second after the introductory chapter on the pillars of Islam. In his opinion, this position is indicative of the author's evaluation of all secular learning as secondary to religious identity: "the intellect ranks in importance below the duties of the religious law."⁴² And Pellat goes so far as to suggest a twofold moral function of the *Mustaṭraf*, inasmuch as it not only supplied basic information on useful topics but also in a period of stagnation helped to strengthen confidence by recalling the achievements of the classical

⁴⁰ Cf. *Journal asiatique* 19,15/1 (1900) 389 (J. Houdas).

⁴¹ Pellat, "Encyclopédies" (as in n.8) 643.

⁴² Rosenthal, *Knowledge* (as in n.16) 274.

period.⁴³ Thus, one might even regard the *Mustaṭraf* as an essential factor in shaping the identity of its readers.

Pellat, Rosenthal and others⁴⁴ understand Ibšīhī's "concern with impressing upon his readers the religious and moral virtues of knowledge" as an inevitable result of the "intellectual climate of his time."⁴⁵ From the present perspective, at the turn of the twentieth century, it is evident that Ibšīhī's work over the centuries since its compilation has lost little of its original appeal. So if the *Mustaṭraf* at the time of its compilation constituted an essential factor in shaping the identity of its readers, its permanent appeal is bound to signal a lasting continuity of this very meaning. Obviously, modern readers still delight in and profit from the *Mustaṭraf*'s presentation. On the other hand, the new vigour the Muslim world has gained since about the middle of the twentieth century has resulted in the strengthening of its traditional identity, and religious as well as traditional cultural values of the classical period are held in higher esteem than ever. For those concerned, this is not indicative of a new period of decadence or a feeling of inferiority, but rather expresses a new consciousness of dignity and pride referring to the cultural achievements of the classical period. Time will show whether under these conditions a work like the *Mustaṭraf*, preserving cultural values of the classical period, moulded in the specific understanding of its fifteenth-century Egyptian author, and presented in its almost unaltered medieval form to a modern audience, will retain the privileged position it has held for so many centuries.

⁴³ Pellat, "Encyclopédies" (as in n.8) 643-644.

⁴⁴ See Fāhndrich, *Begriff* (as in n.30) 335: "trotz der dem Geist seiner Zeit entsprechenden stärkeren Betonung des Religiösen bei al-Ibšīhī"; cf. G.E. von Grunbaum, *Der Islam im Mittelalter* (Zürich/Stuttgart 1963), especially chapter 1, where the *Mustaṭraf* is cited in several places (see index).

⁴⁵ Quotations from Rosenthal, *Knowledge* (as in n.16) 275.

APPENDIX: LIST OF CHAPTERS IN THE *MUSTAṬRAF*

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| 12. moral advice | 43. satire | 77. prayer |
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| 15. companionship of the ruler | 46. beauty and ugliness | 80. illness |
| 16. counsellors | 47. jewelry and adornment | 81. death |
| 17. courtiers | 48. youth and old age | 82. patience |
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| 19. justice | 50. travel | 84. praise of Moham-med |
| 20. injustice | 51. richness | |
| 21. how to treat the subjects | 52. poverty | |
| 22. happiness of the people | 53. begging | |
| 23. good and bad character | 54. presents | |
| 24. good company | 55. work and professions | |
| 25. harmony | 56. fate | |
| 26. modesty | 57. relief after hardship | |
| 27. pride | 58. slavery | |
| 28. boasting | 59. the ancient Arabs | |
| 29. dignity | 60. prophecy | |
| 30. venerated people and saints | 61. ruses | |
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